INTENSIFYING THE COLLECTIVE USE OF PUBLIC PLACE

By Darrell E. Aldrich

Bachelor of Fine Arts,University of Colorado,
Boulder, 1985.

Submitted to the Department of Architecture
in partial fulfillment of the requirements for the
the degree of MASTER OF ARCHITECTURE at the
Massachusetts Institute of Technology

May 1994

Signature of the Author .....
Darrell E. Aldrich
Department of Architecture
6 May, 1994

Certified by.....
Fernando Domeyko
Lecturer in Architectural Design
Thesis Supervisor

Accepted by .....
.....
Rosemary Grimshaw
Chairperson
Department Committee for Graduate Students

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Senior Lecturer Architectural Design

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Abstract

The premise of the thesis states that to intensify the collective use of public place there must exist a broad collective understanding of physical constituents that 'build' spatial relationships. These spatial understandings are 'made' through a relationship of physical definitions in a particular landscape and should give indications as to how the built environment should be used.
Spatial qualities are determined by their capacity to be physically, mentally, and emotionally accessible through association. To examine this premise, the thesis proposes the design of an outdoor public plaza, the configuration of buildings that defines it, and their relationship to an existing public path. These buildings include a learning center and dorm, a commercial building, and a subway station.

ACKNOWLEDGEMENTS

First I would like to thank my wife, Carla, and my son, Chandler, for maintaining the base camp while I scooted to the top of the summit. The pursuit of the dream would never have been possible without the nurturing environment that the two of you created through your endless source of love, support, and encouragement.

I would also like to thank my grandfather, a builder whose exquisite craftsmanship, taught me at a very young age, the satisfaction gained through the process of ' making'.

I am grateful to my parents who instilled within me the attitude that anything is possible if one is willing to work for it.

I'd like to thank the Feuerbach clan, who just by being who they are, helped to raise my expectations to a new and much higher level.

I feel very fortunate in that I was able to expose myself to professors Fernando Domeyko and Maurice Smith whose insight and rigor had originally attracted me to MIT.

A special thanks to Fernando for his deep commitment to teaching and insatiable critical mind. You have opened up a new experiential outlook on life and design that will continue to guide me for the rest of my life.

Thanks to the '91-'94 gang, Taylor, June, James, and even Dan for all the laughs, this place may never be the sane!

INTENSIFYING THE COLLECTIVE USE OF PUBLIC PLACE:
A PUBLIC PLAZA FOR DAVIS SQUARE

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INTRODUCTION

"Every element assumes its own function and is recognizable in its function. Individual elements do not place excessive demands on the whole and vice versa, nor is the building subject to arbitrary restrictions.

A room remains a room,
a wall remains a wall,
a chair a chair,
the window is a window and
the path is a path,
a step is a step and
a tree is a tree." -Gunter Behnisch

Behnisch and Partners,pg 121.

The premise of the thesis states that in order to intensify the collective use of public place there must be a broad understanding of the spatial relationships that the contributing elements establish. These spatial understandings are built through a relationship of physical definitions in a particular landscape and should give indications as to how the built environment should be used. Without these strong definitions, associative relationships are impossible to form and will inhibit the user from invoking memory of, or establishing meanings for, any given place. Spatial qualities are determined by their capacity to be physically, mentally, and emotionally accessible through association.

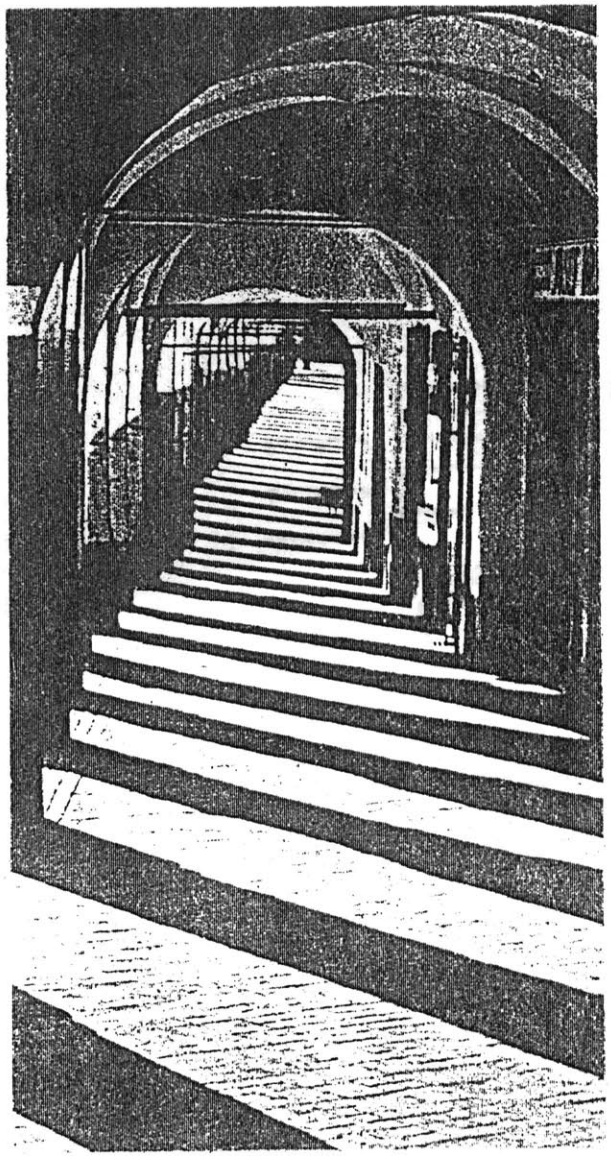
Growing up as a child in the wide open countryside of the rural midwest and as an adult in the desert valley of the Sangre de Cristo mountain range, left strong memorable images of intensified built and un-built definitions. The relationship between the mountains, the valleys, the sky, and the tributary streams established large dimensional partial containments that were comprised of strong edges. The strength of these edges were intensified and understood

through their continuity within the landscape. At the smaller dimension, that of the homestead, farm, or ranch, edge definitions were built either from the natural landscape, built alterations in the landscape such as trenches or tree plantings, or through the configuration of buildings placed on a site.

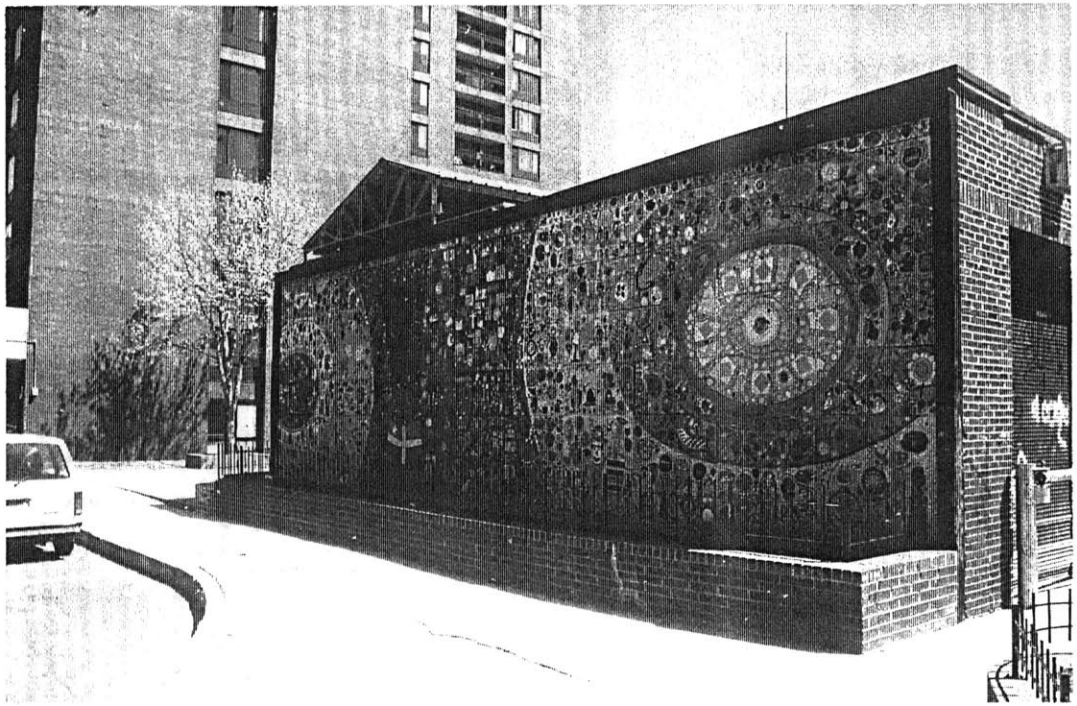
Village of Zambian herdsmen, Mary Light, (Bernard Rudofsky, Architecture Without Architects, University of New Mexico Press, Albuquerque,N.M. 1964)

Surprisingly, upon moving to an urban setting where the built environment was more dense, the more difficult it became to establish spatial relationships. It is believed this inability to formulate strong spatial associations is because many of the existing design decisions in the urban fabric were singularly formulated, making no attempt at establishing any formal structured framework or continuity that could generate spatial relationships. Without clear definitions and succinct continuities the fabric becomes a muddled and fragmented environment offering no indication as to how it should be used and disallowing any opportunity to establish experiential associations.

Interior of an arcade, Telc, Czechslovakia, Prof. Plicka, (Bernard Rudofsky, Architecture Without Architects, University of New Mexico Press, Albuquerque,N.M. 1964)



The exploration investigates, at several different dimensional scales, built definitions that establish similar relationships between use, structural integrity, sensitive use of materials, and natural light. These 'effects' increase the understanding of the individual structural elements and their larger relationship to the whole. These elements are the column, the floor, the wall, the screen, and the roof. The different references will be existing neighborhoods, plazas, buildings, and paths.



Mosaic wall, Villa Victoria, South End of Boston, Massachusetts, 1994.

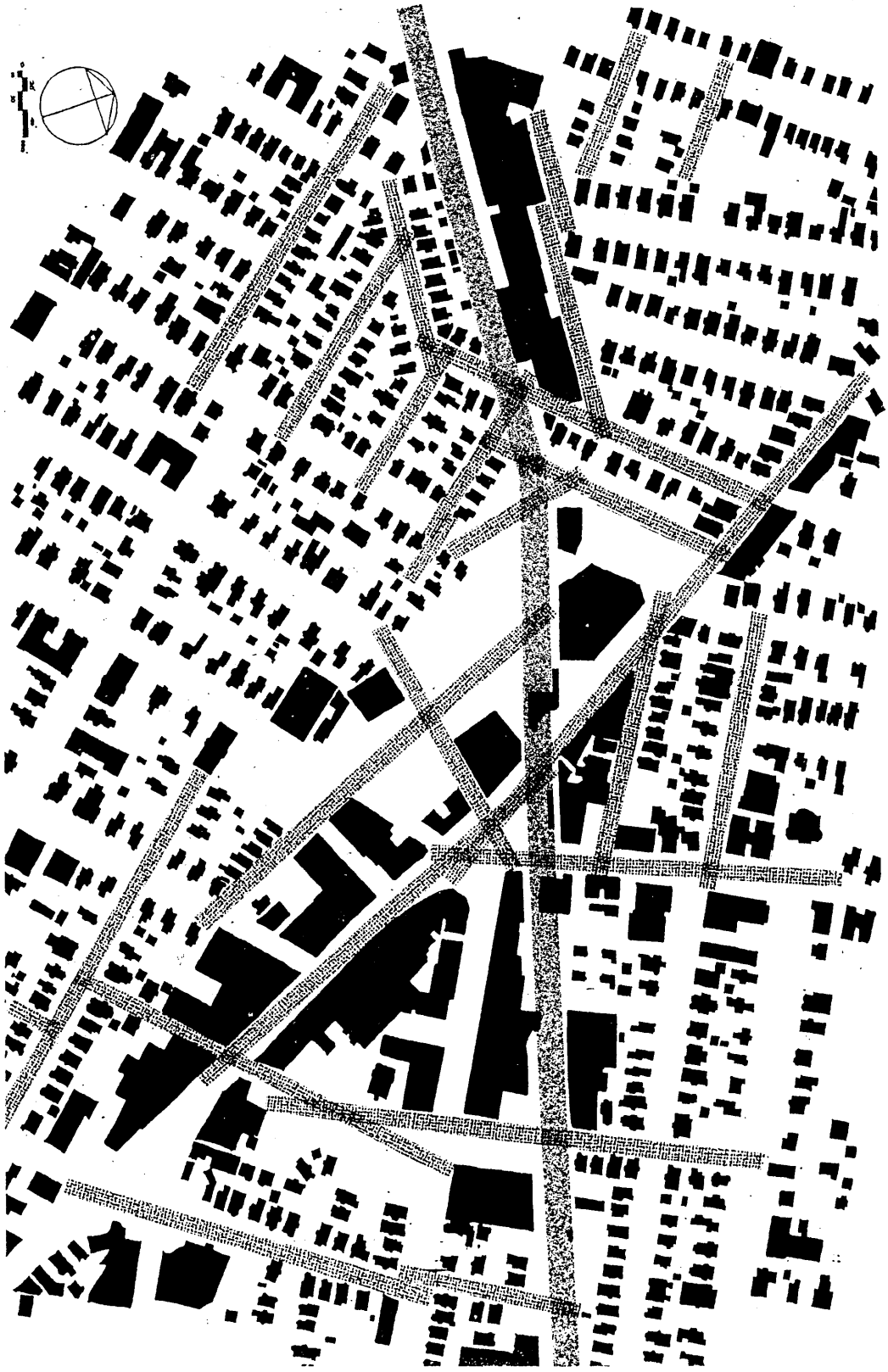
The exploration of the thesis will concentrate on how built definitions can intensify the capacity by which a public place can be collectively used. Through a deeper understanding of spatial relationships the experience of inhabitation is enriched.

The information compiled from the exploration is then used in generating the decisions in the design of a public plaza in Davis Square, a neighborhood center located in Somerville, Massachusetts. The plaza is built through definitions established by the deployment of a learning center, its dorm, a commercial building, a new subway station and their relationship to an existing pedestrian path that is extensively used by the neighborhood.

Analysis

"Form encompasses a harmony of systems, a sense of Order, and that which distinguishes one existence from another. Form is the realization of a nature, made up of inseparable elements. Form has no shape or dimension. It is completely inaudible, unseeable. It has no presence; its existence is in the mind. You turn to nature to make it actually present." -Louis Kahn

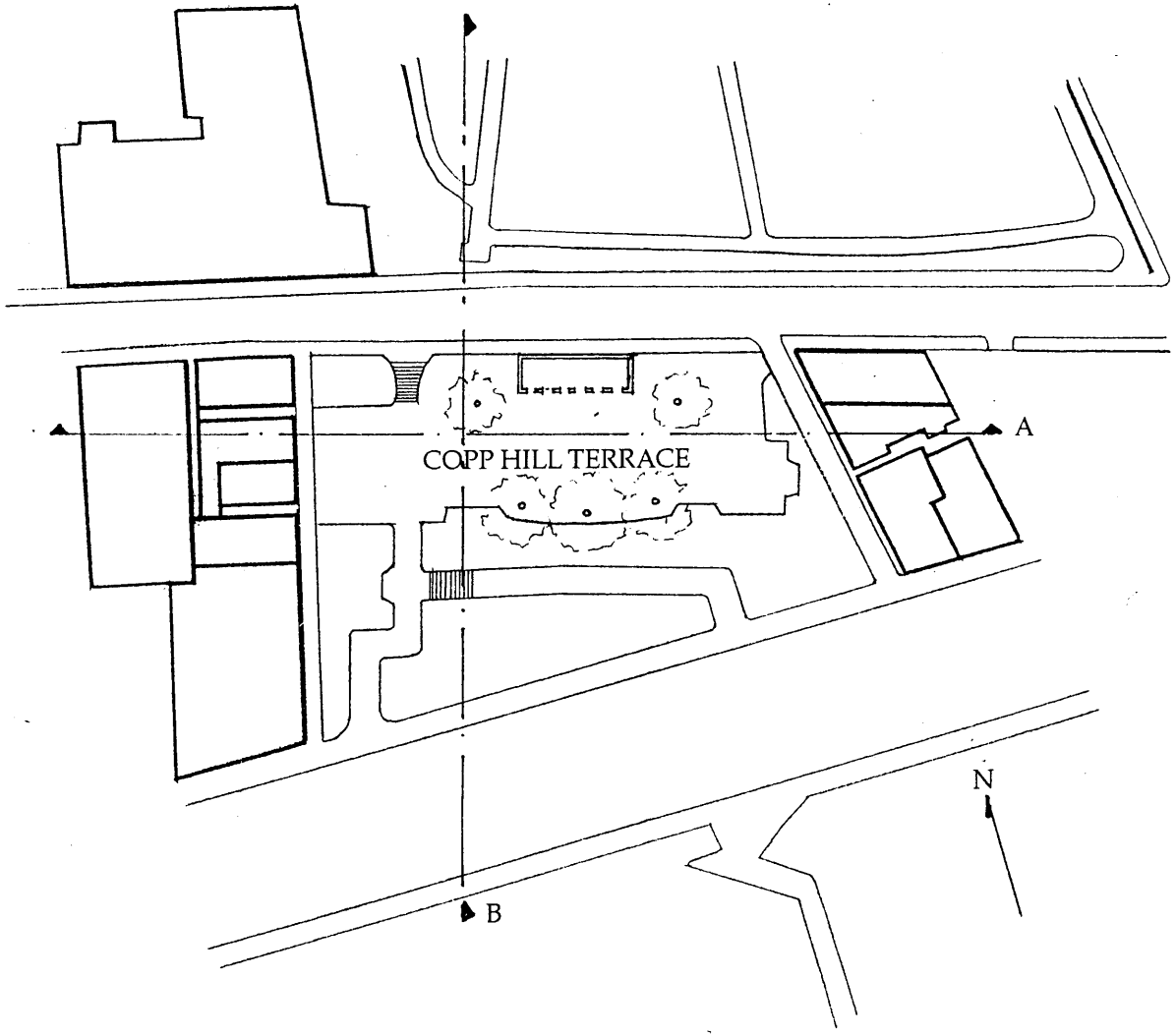
Lobell, Between Light and Silence, pg.28



The analysis conducted for the thesis researched a dimensional variety of spatial environments that generated a number of strong definitions. Spatial issues that were considered were definition of edge, accessibility, size and scale, quality of material and light, and possibilities for multiple use. The examples were divided up into categories of plaza, street, block, and building.

The research included the following plazas, Paul Revere Plaza, the North Plaza, the Copp Hill Plaza, the Villa Victoria. Street studies were analyzed in the Davis Square neighborhood, as well as block studies, and buildings that were explored were the Carpenter Center,and the Cambridge Montessori School.

(opposite pg)
Figure/ground analysis of the Davis Square commercial area and surrounding neighborhood. Exploration of visually closed street zones and continuity at pedestrian/bicycle path.



COPP HILL TERRACES

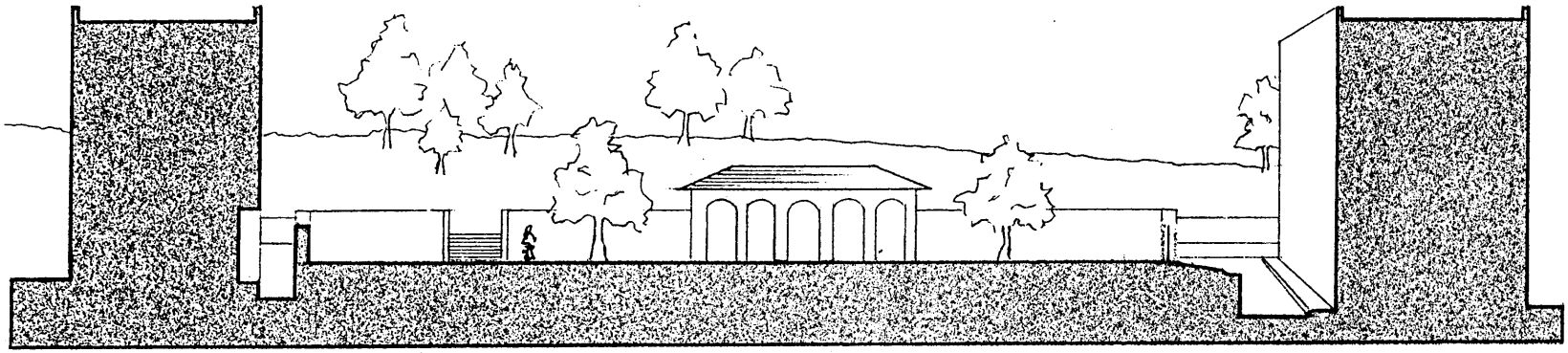
North End, Boston, Massachusetts

Plan view with built definitions

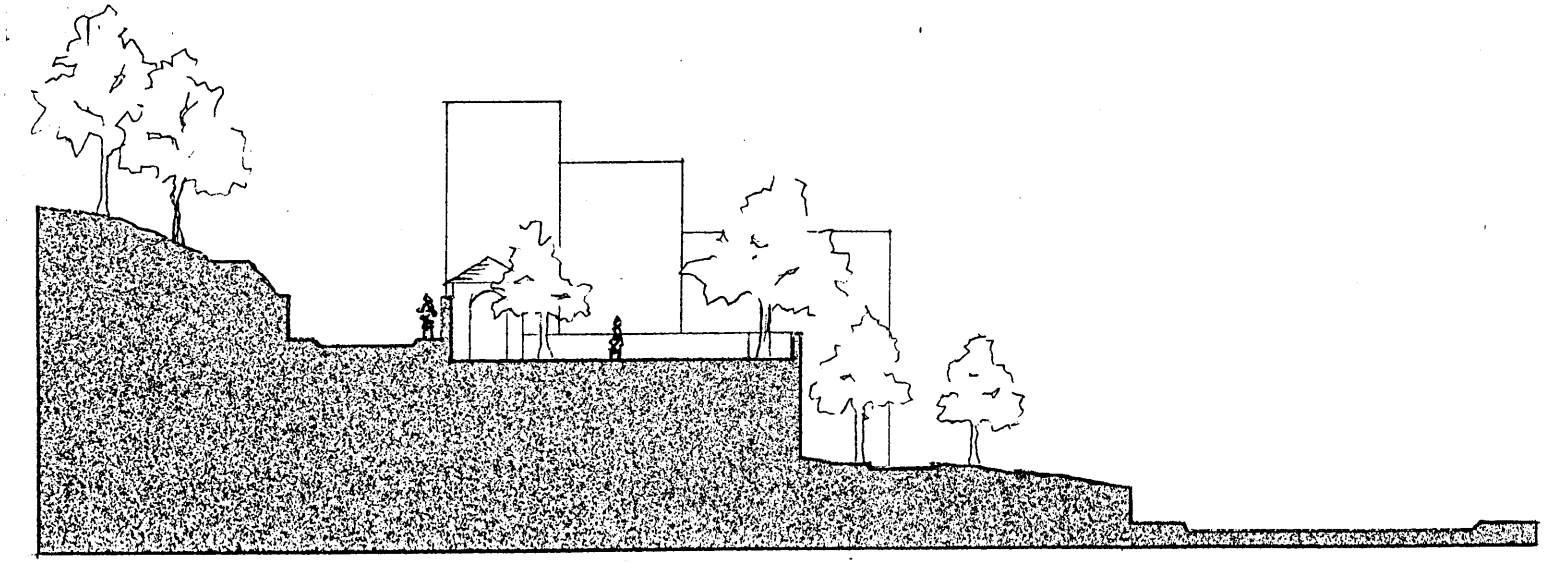
Copp Hill Terraces are defined by two high density residential blocks that face each other. The separation between the terrace and the residences is established by a four foot high, two foot thick wall on the east side, and a wrought iron fence on the west side. Each side also has a six foot wide access zone. The intensity of this edge is minimal which makes it less public but probably more safe at night. The north and south edge is intensified by the sectional change on the north side and the eight foot high wall at the street on the south side.

Section view at A(opposite pg, top)

Section view at B(opposite pg, bottom)



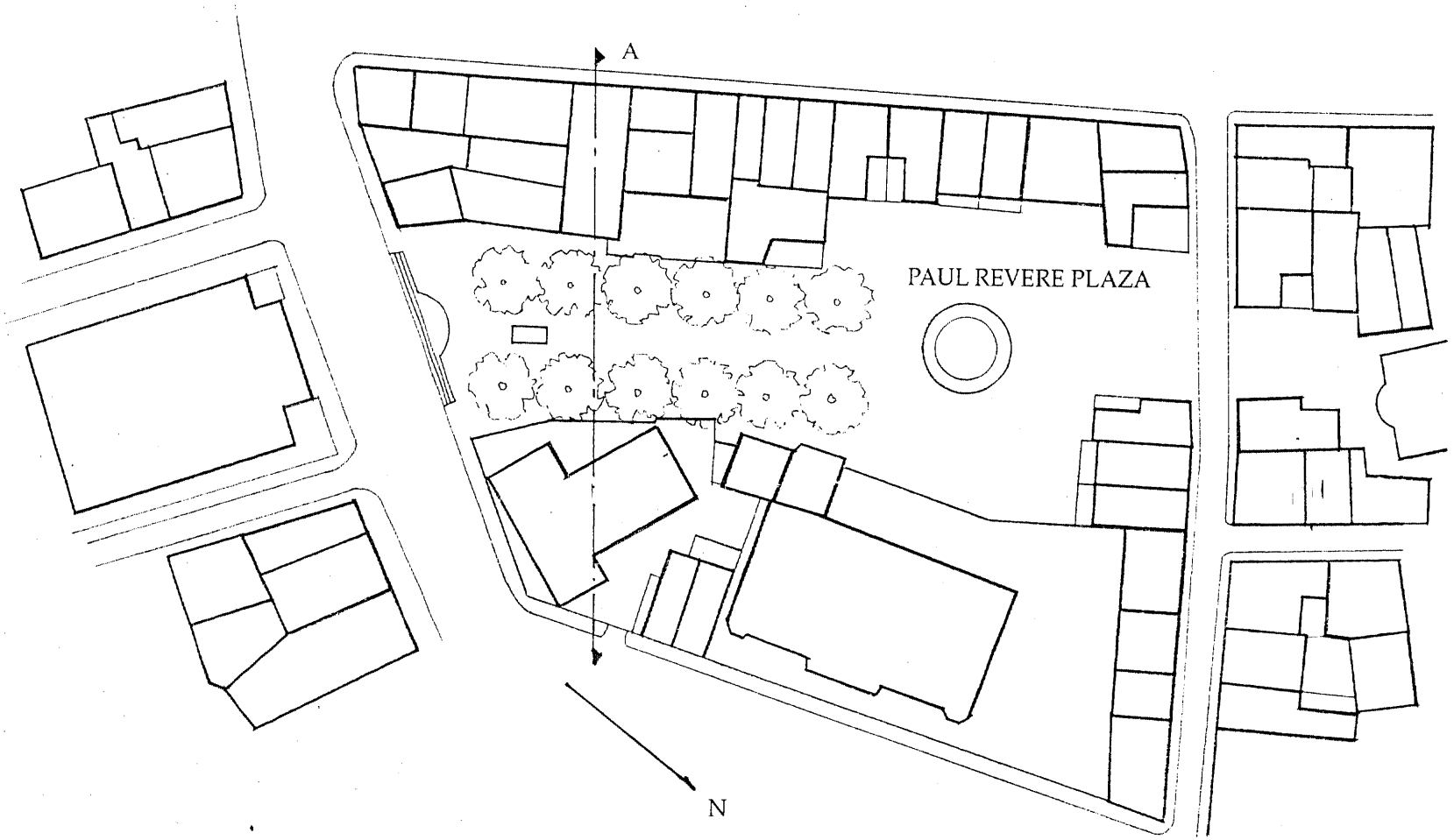
Section A



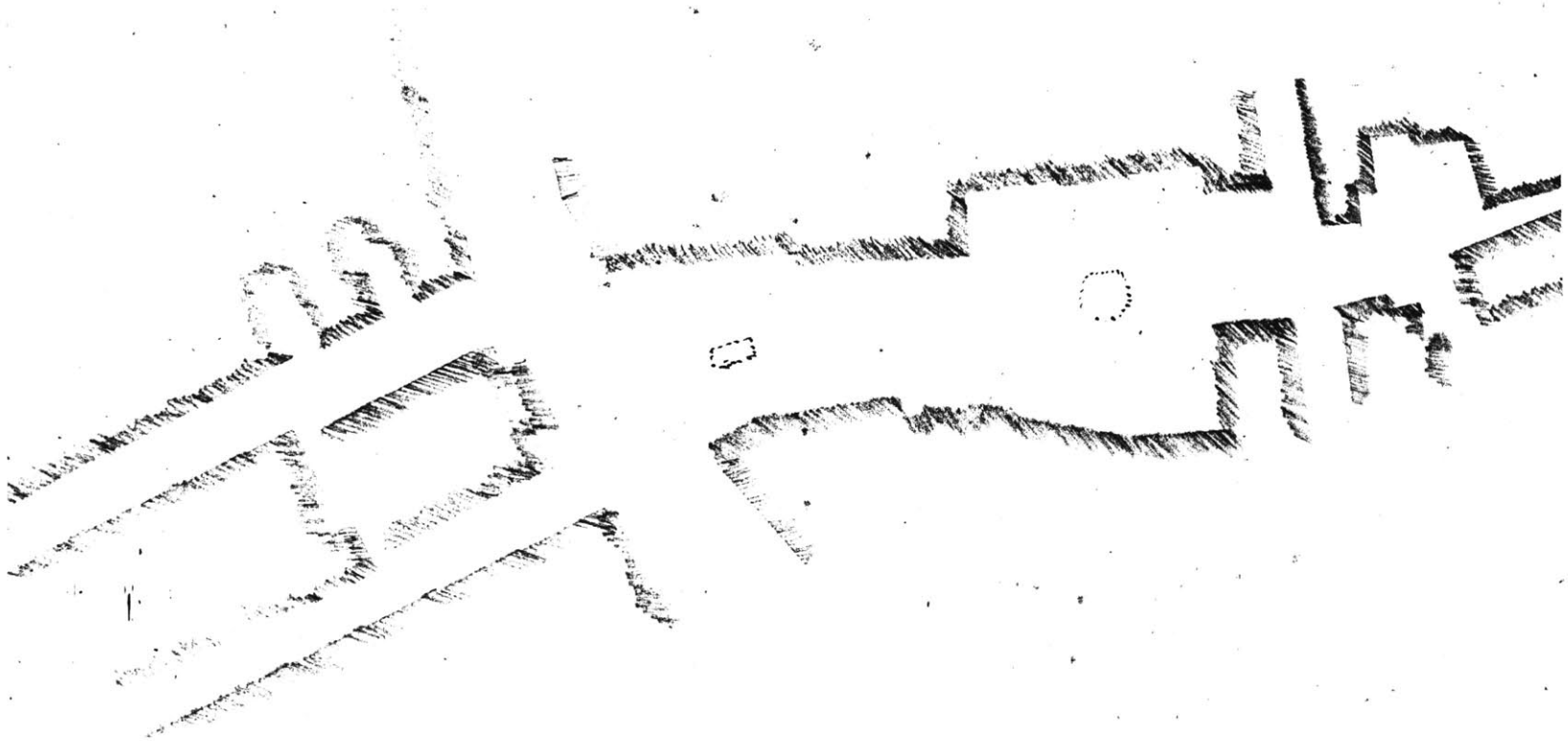
Section B

Physical Edge Definition Study

Photos showing access zone and edge definition between the terrace and the residences. The edge intensification on the east side of the terrace (left photo) creates a physical definition via the stone wall. The west end of the terrace is defined by a wrought iron fence which becomes a virtual edge and less successful separation between private and public.

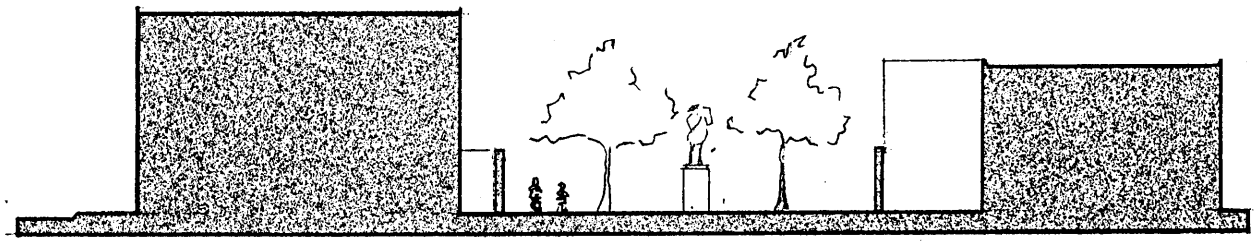


PAUL REVERE SQUARE
North End, Boston, Massachusetts
Plan view

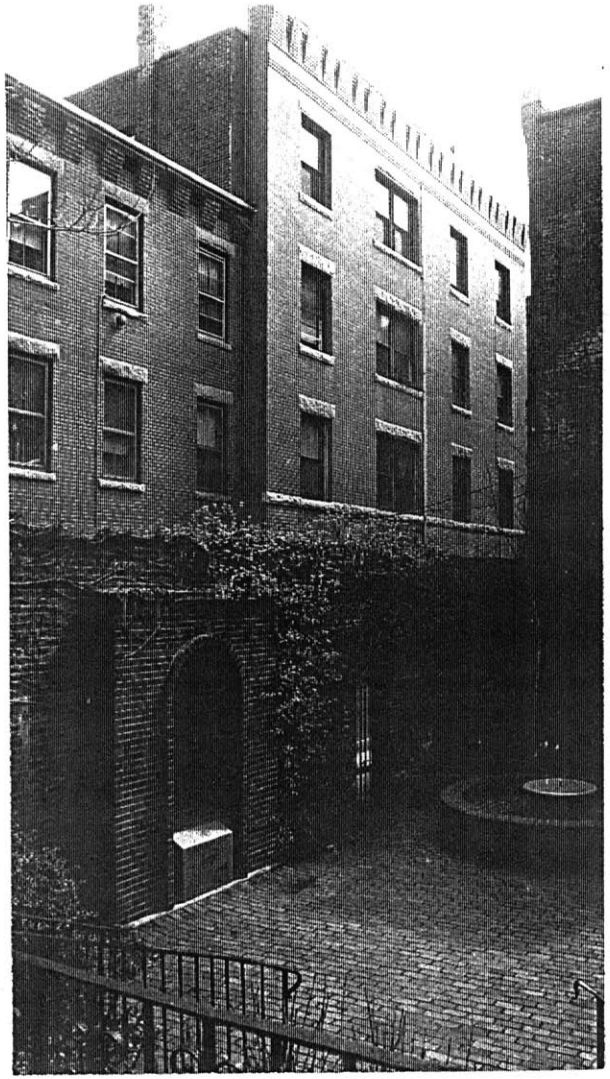


Physical Edge Definition Study

The Paul Revere Plaza is a successful reference for a public plaza. The walls that establish its two longitudinal sides are of a height, depth, and material that succinctly defines the edge separating the public territory from the private. Other elements that contribute to intensify the separation are the trees that demarcate a layering of zones that provide opportunities for many different uses.



Section A



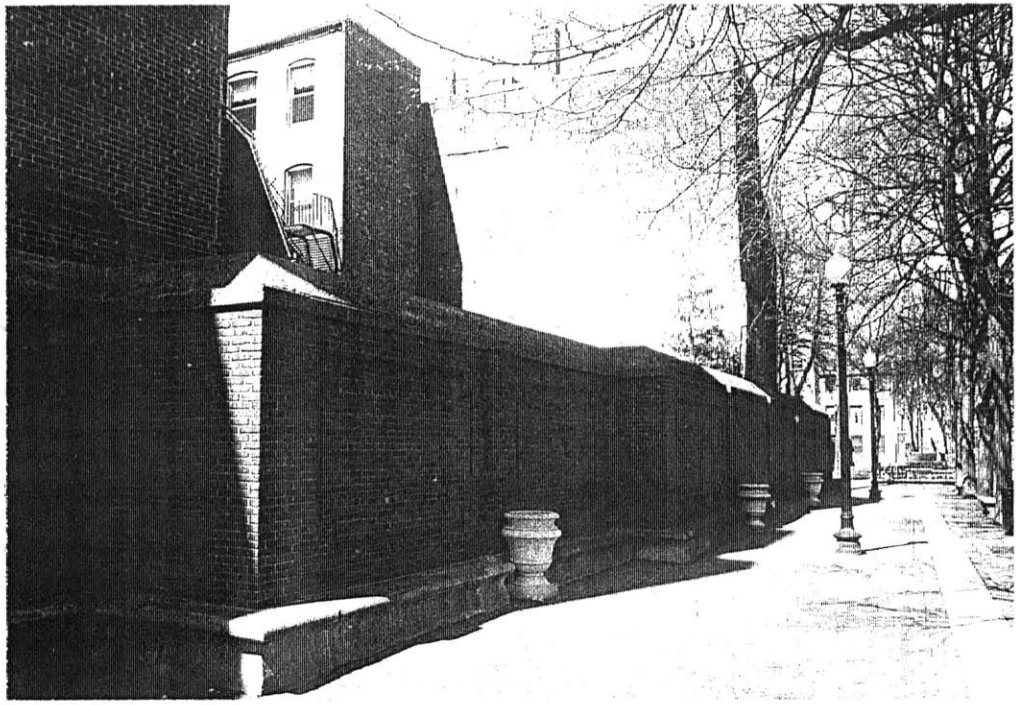
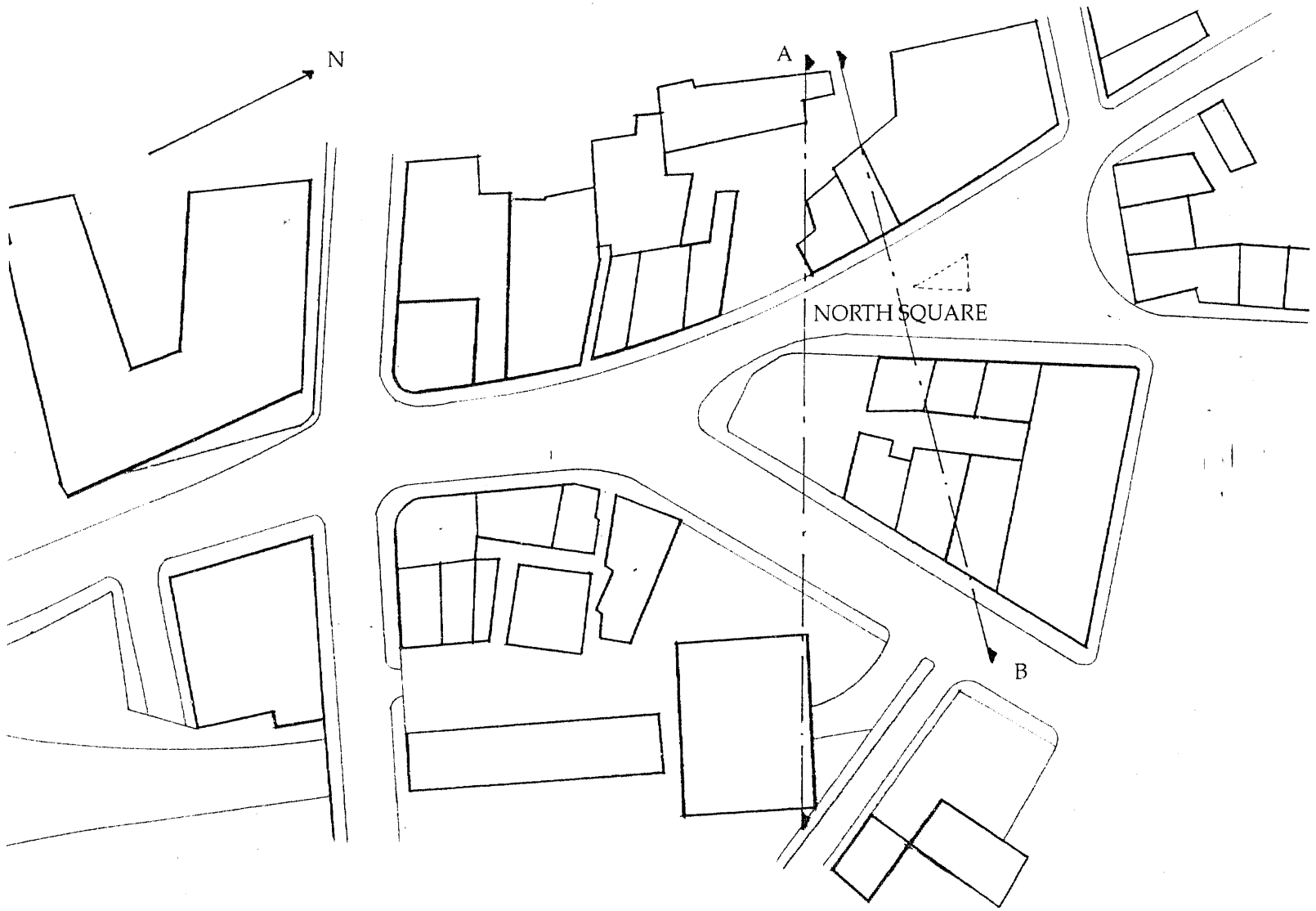
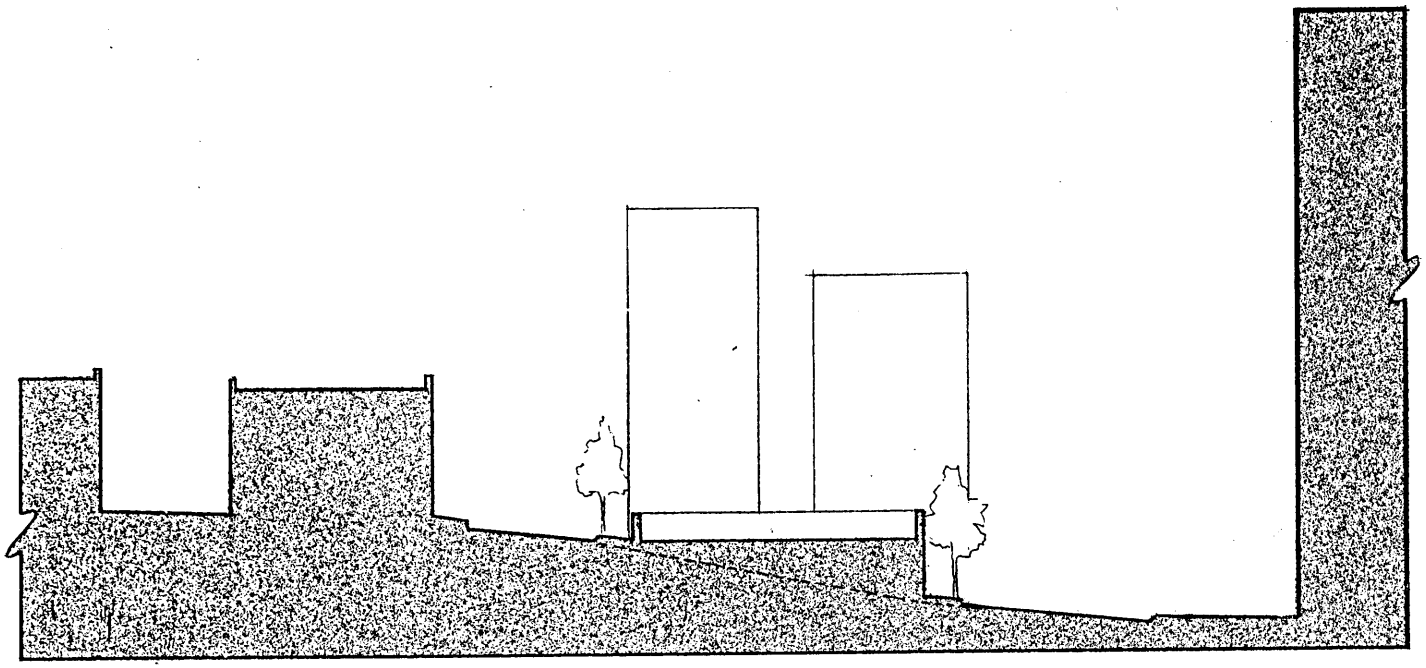


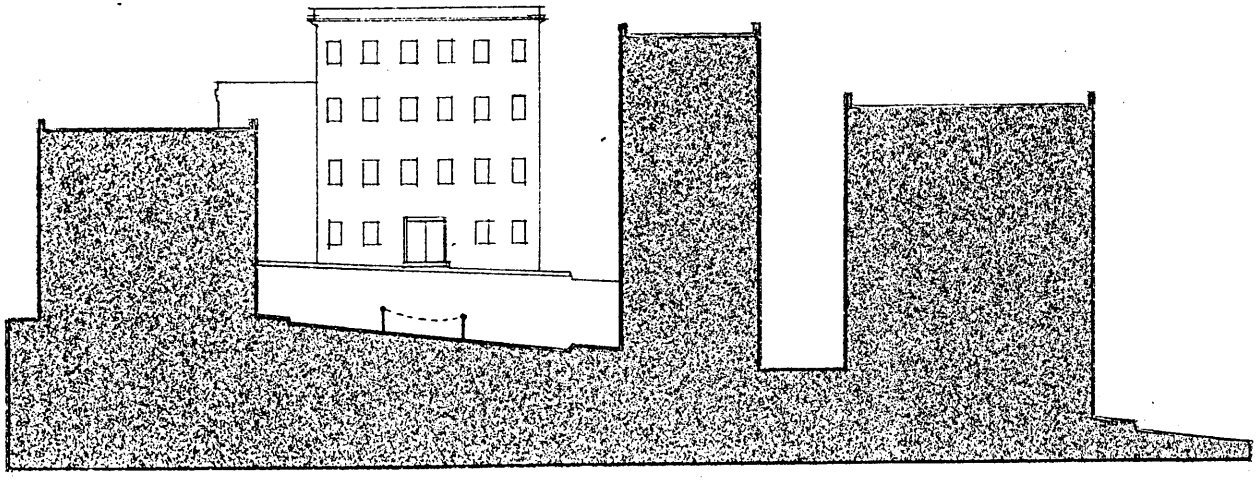
Photo left-North Church courtyard wall separating
it from a street and residences beyond.
Photo right-The west wall of the plaza with additional
demarcations that establish scale, encourage use



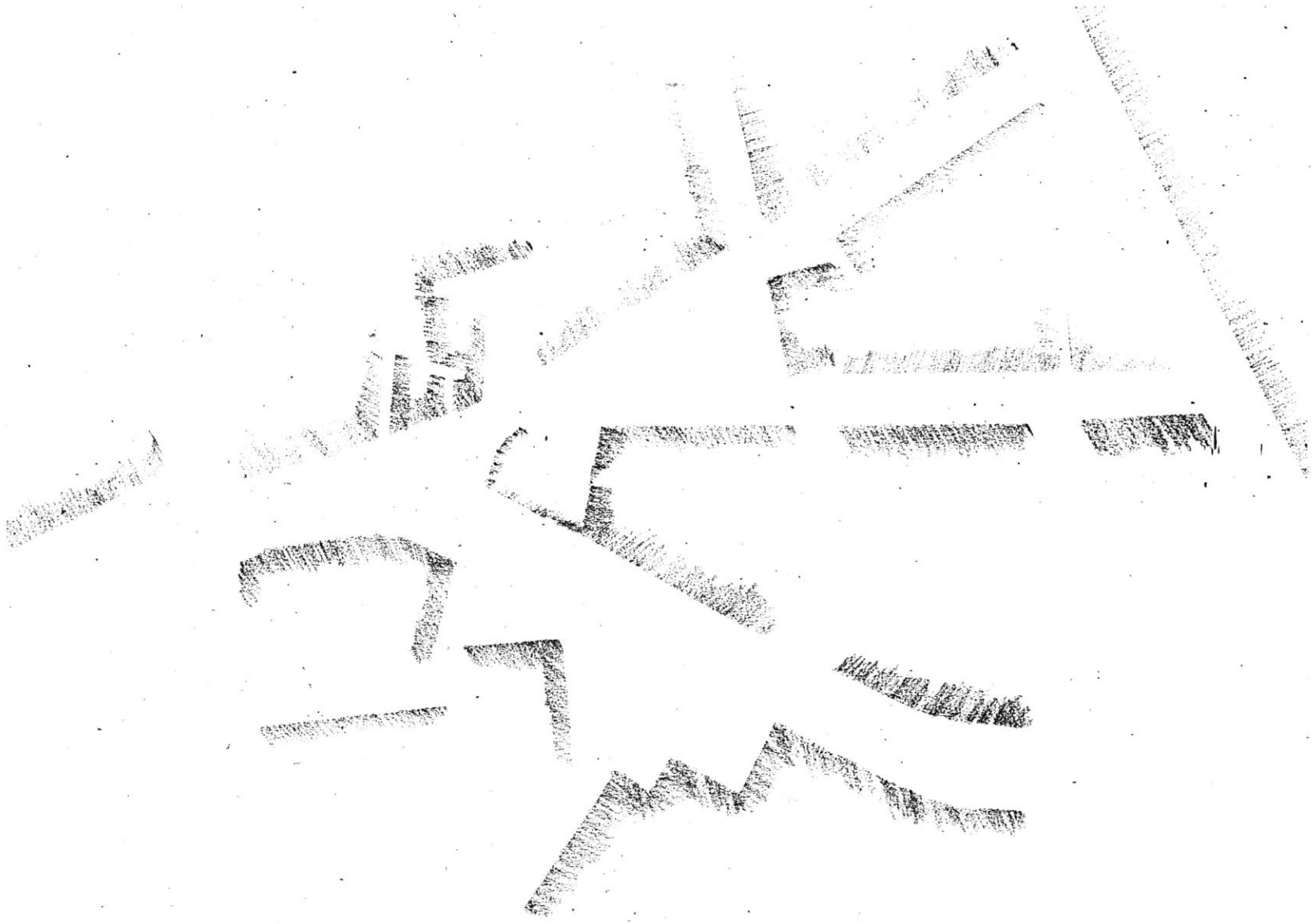
NORTH SQUARE
North End, Boston, Massachusetts



Section A



Section B

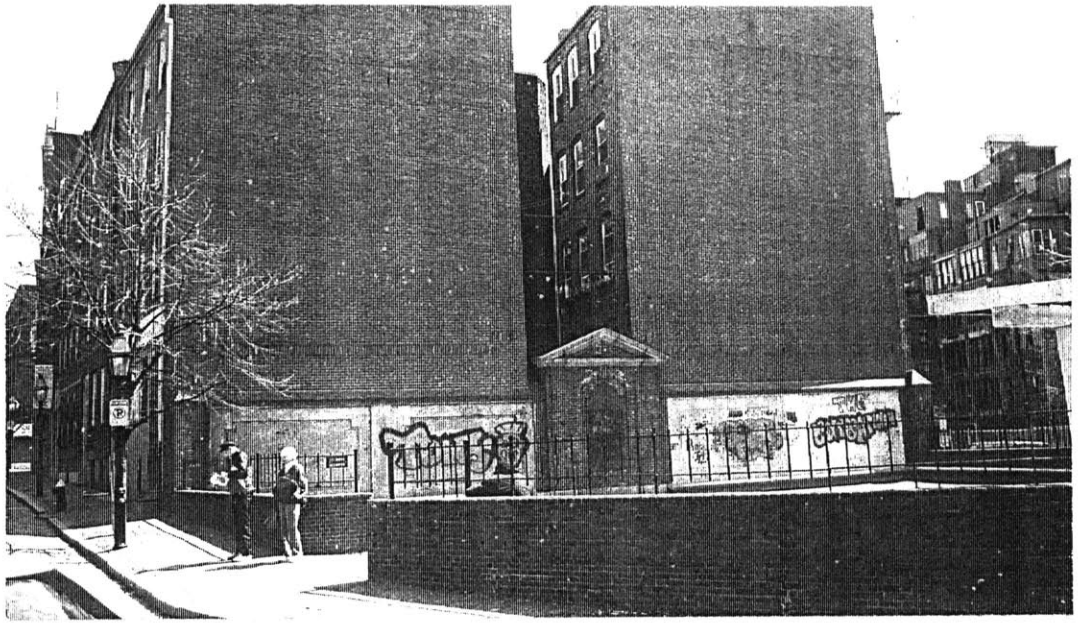


Physical Edge Definition Study

Photo left- A small public square that adjoins the North Square. The intensified edge is established by the sectional change at the street and by the blank walls on the north side of the square.

Photo below- Blank walls that intensify the separation between public and private territory at the same square as mentioned above.

The public definition at the North Square is ambiguous and leaves claim of the street court to the business establishments that surround it. On the other hand, the small square to the south of the North Square has a much stronger association to public use. No claims are made on the territory and the edge definition is built through the five story brick walls and the section change at the street edge. This is a small public territory yet heavily used because of its neutral claim. The North Square is seldom occupied.



PATH

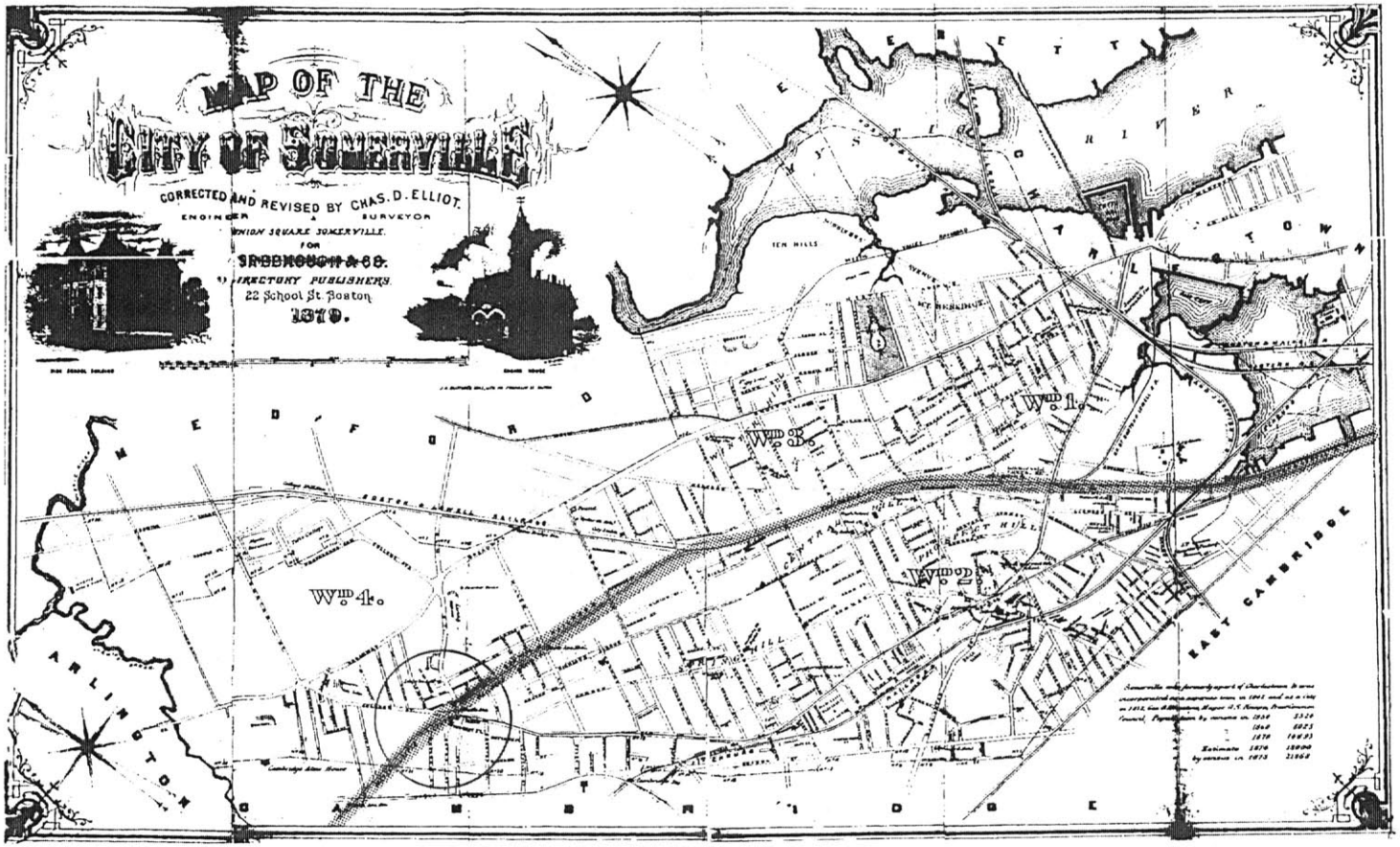
"Characteristic spatial qualities are able to strengthen the image of particular paths." -Kevin Lynch

Image of the City, pg 50

Photo above- One of the 'gates' on the public path that implies a transitional zone between the neighborhood and the commercial zone. The 'gate' lacks any associative use consequently implying a node yet fails to establish one. The continuity of the path is also disrupted here as its dimension and surface material changes and the path loses its intensity as edge definition becomes more ambiguous.

The path that borders the site is a very strong element intensifying the collective use of the plaza. It establishes a continuity through its use as a prominent pedestrian connection between the nearby neighborhoods and the Davis Square village. It also provides a link to the subway station which establishes a connection to the city. Since the Davis Square area is demarcated by an informal organization of streets, the pathway provides a clear registration for the user.

The path travels along what was once the Arlington and Lexington rail bed. This connection travels from Boston well into the western suburbs of Lexington, Massachusetts and beyond. It is heavily used as a recreational and commuting bike path as well as a pedestrian path. From the Davis Square subway station to the Alewife subway station, the path is located on top of the subway tunnel that lies below it. The experience along the path ranges from linkage to parks, small picnic areas, and access to commercial pockets. The path's edge and definition varies from a clear understanding to a more ambiguous definition. The quality of the collective use is intensified by the more defined edges



Map of the City of Somerville, 1879, Charles D. Elliot, Engineer and Surveyor, Zelle, Carole (Beyond the Neck, Landscape Research, 1982.) pg. 32. Take note of the public path highlighted and its relationship to Davis Square that is circled.

Photo top- The public path at the eastern end where the edge definition has disintegrated and confusion in ownership has led to trash littering . Because of this situation, the path is less used by the public.

which generate a clear understanding as to what terrritory belongs to whom. Referring to illustrations on the previous pages, one can see that one edge is defined by a three foot high embankment that is then flanked by a six to eight foot high retaining wall, topped by an eight foot chain linked fence. There is no mistaking where the edge of the walkway is and, consequently, the path is associated as being very public at this location. At this same location, the other edge of the pathway is defined by the long and tall wall of an industrial building. Because of the relationship of these two strong elements, this territory is one of the more heavily used collective areas along the path. Farther up the path, see illustrations, one of the edges is less defined by a low fence and the remains of a homeless people's settlement is evident where entrance was gained by cutting through the fence. The fence was regarded as an implied edge rather than a physical edge and was disregarded. In the summer, when the homeless settlement is yearly occupied, the path becomes less public and less used in this area. In this particular situation the public use of the path would have benefitted by

Photo top- One of the more successful collective zones of the path built by strong definitions. A six foot high wall on the right with an eight foot high fence on the top of that. A factory wall whose windows start at a height ofsix feet contributes to the establishment of the public territory.

not having a fence at all and letting the building's nearby walls define the territory. The same situation exists on the path at the east side of the square where the definition of the path is less intense and an ambiguous level of ownership develops. Since there are no edges developed, there is confusion as to whose terrritory it belongs to, consequently discouraging collective ownership, and it then becomes a zone where trash is dumped and accomulated.

Collective paths in a city environment must have a clearly defined edge that establishes the territory as public. The maintained continuity can then intensify the use and provide an association with the larger context that it is connected to.

Photo left- Public path with edge definition on right

Photo below- Path with implied edge definition that is ignored and is claimed by a homeless people settlement every summer. Because of the lack of edge the path at this point is less public and discourages collective use.

Plan view of the Davis Square area and its relationship to the public path. Note the strength of the path's continuity.
A-Site location B-Existing subway station
C-Existing plaza D-Somerville theatre
E-Old industrial buildings

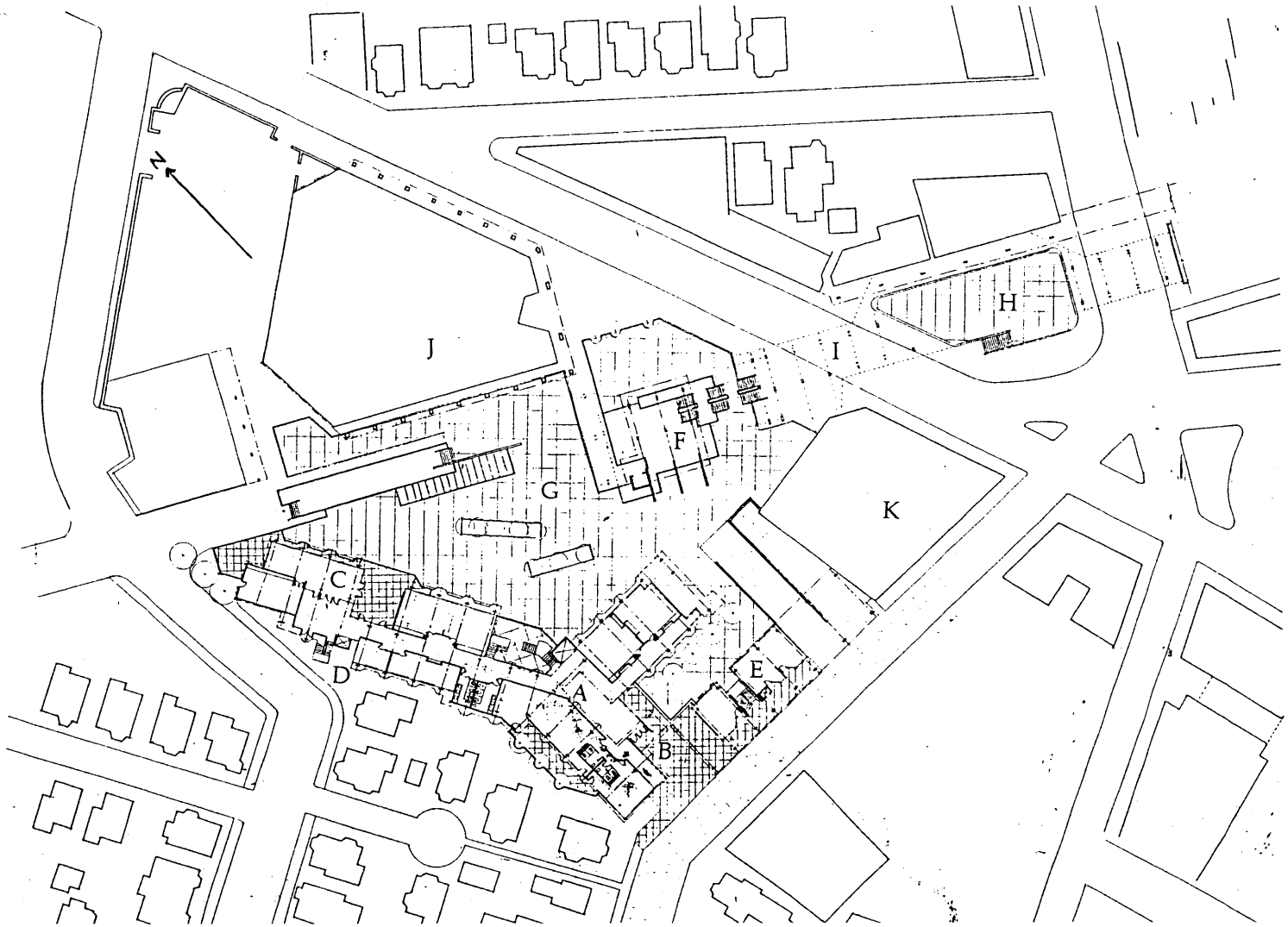
Plaza Configuration

"The idea that the form of buildings and open spaces should be determined at the beginning of work on a project seems absurd to us.

We find it a more worthwhile approach to determine form at the latest possible stage.

There are naturally certain elements that have to be fixed at each stage. But only those that it is absolutely necessary to fix, and not the whole project. In this way we approach the end-product step by step, become acquainted with as many aspects and elements of the project as possible, work out answers piece by piece, and on completion we are able to recognize the many aspects and separate parts of the brief that have combined to form "a single entity".
Determining form?" -Gunter Behnisch

Behnisch and Partners, pg 180.



Plan view of plaza configuration

Legend for plaza configuration on opposite page
A-Learning Center
B-Learning Center entrance
C-Dorm at Second Level
D-Dorm entrance
E-commercial building
F-subway station
G-new plaza
H-re-designed existing plaza
I-passages under existing street
J-existing social service building with underground parking that is re-designed to be at plaza level
K-existing Somerville Theatre

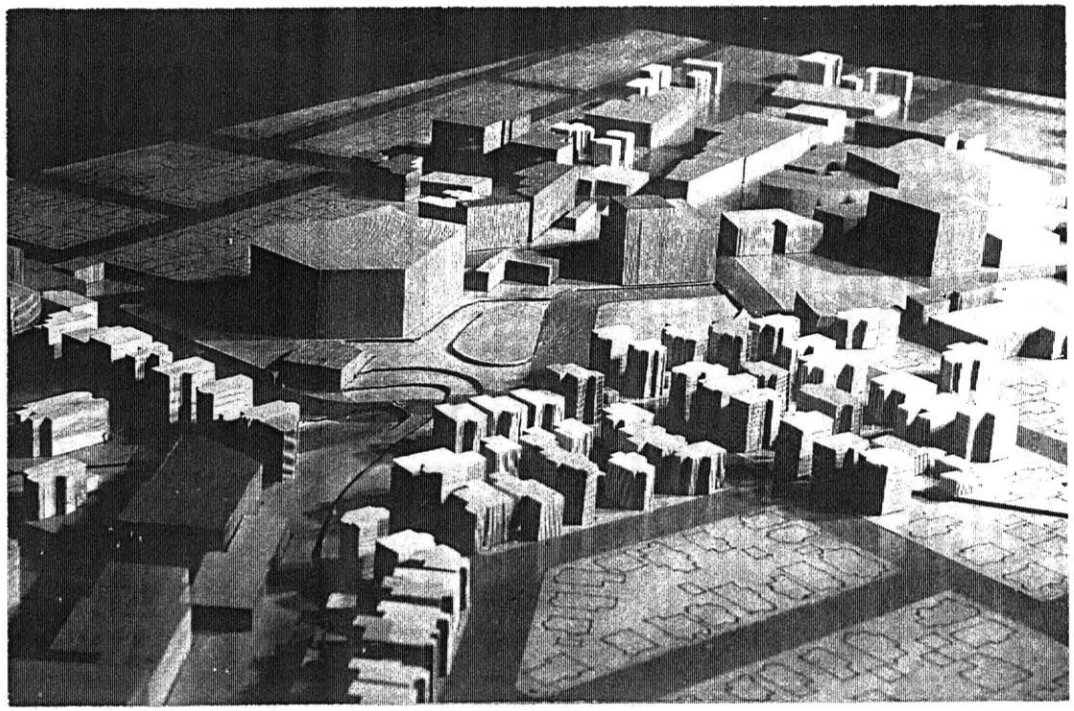


Photo right- Massing contextual model of the Davis Square commercial center with surrounding neighborhood and public path running diagoanally from lower left to upper right

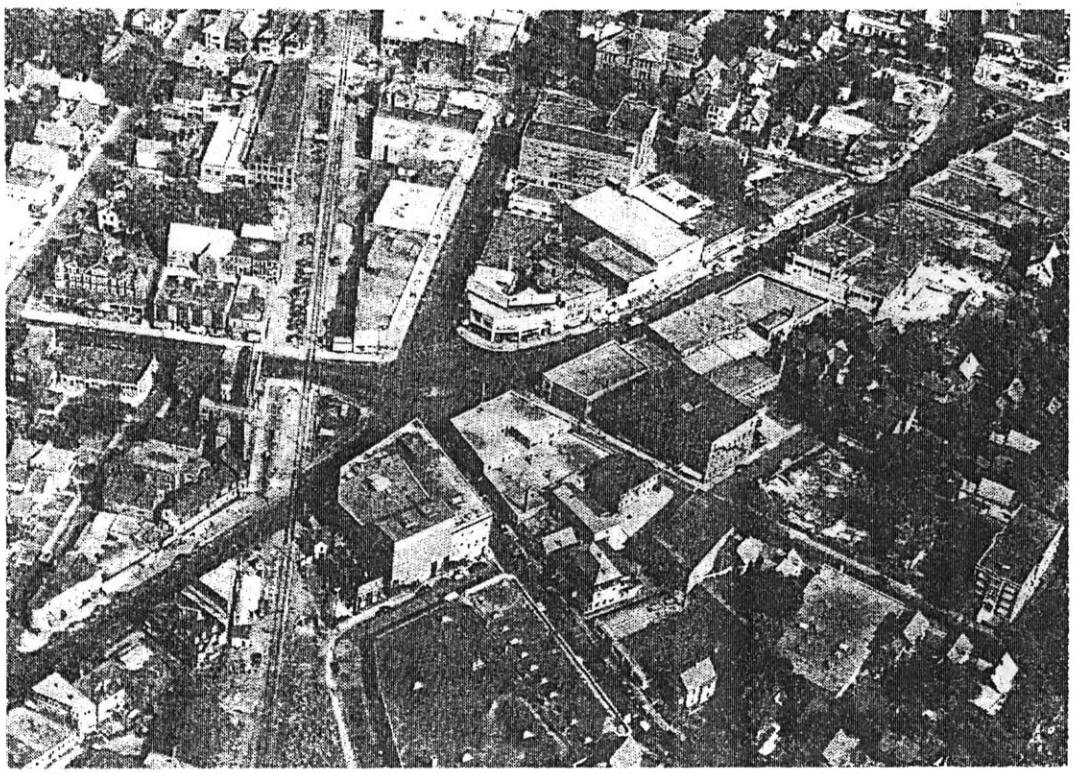


Photo left-Davis Square 1950, Zelle, Carole (Beyond the Neck, Landscape Research, 1982.) pg. 132. Note the grade level railroad track that is now the public pathway.

The plaza configuration is a spatial response determined by the conditions of the site to develop a social landscape in which institutions, the larger dimensional context, and nature are cast in an interactive relationship. The site location was chosen because of its close access to the subway station, the commercial zone, the housing zone, and

the established pathway / bikeway that connects the square to nearby housing zones and back to the city of Boston. The significance of the path was very important and is discussed further in another part of the exploration. Since most of Davis Square is controlled by vehicular right of way, opportunities for collective use is minimal. Farmer's markets and other festivities are required to be conducted in parking lots and other areas which have no defined edges or associations with the use they are being utilized for. Collective use for small groups of people is provided for in a small left over zone in the center of Davis Square but it is undesirable and underused due to the overwhelming existence of the vehicle.

The site is defined by the Somerville Theatre, a large brick mass of building located on the east side of the site. Establishing the north edge is another large mass of building of similar material that houses medical services, a restaurant, and an underground parking garage. The site also has in existence the western entrance of the Davis Square subway stop on the Red Line. The subway station is also

underground except for the small entrance that informs the user that, yes, there does exist such an element, even though the subway's use and association is hidden from the street. The south side of the site is presently established by a parking lot and the west side by the housing stock. The housing stock of the adjacent neighborhood is comprised of single and multiple family single detached houses. Many dating back to the early 1900s, most of clapboard, gabled roof forms that have been altered over the years with numerous additions. The density of the housing is quite intense and so dense that the closeness of the houses actually creates a strong edge at the street and establishes a second zone of more private occupation at the rear of the houses. Since this strong edge is defined through the closeness of the houses, fences are not needed to claim the territory thus allowing the interior of the block to act as a whole within the neighborhood block. The configuration of the streets in many cases are also dynamic in that many streets end in T-intersections, sometimes at both ends, establishing yet another zone of use, that of the street neighborhood. This

rich mixture of associations are elements that intensify the collective use and establish a place as public.

The new configuration of the buildings at the plaza establish relationships that build the spatial quality. The plaza is designed through an understanding in the accumulation of parts rather than a single entity. Within this understanding is developed a multiple set of spatial and qualitative relationships both within the plaza and beyond it at the dimension of the city. Design decisions were driven from observations of the relationships between the individual and the collective, the natural and the built, the physical and the metaphysical, the permanent and the non-permanent, that which is within and what is beyond. In the observation of these relationships a person realizes that one entitity is lost without the other. Since each element does not act alone and is related to another element, a processional and heirarchial story is told that not only informs the user of each individual act but also connects the concept as a whole.

Several zones are defined within the configuration. These zones are arranged in plan as well as in section. The

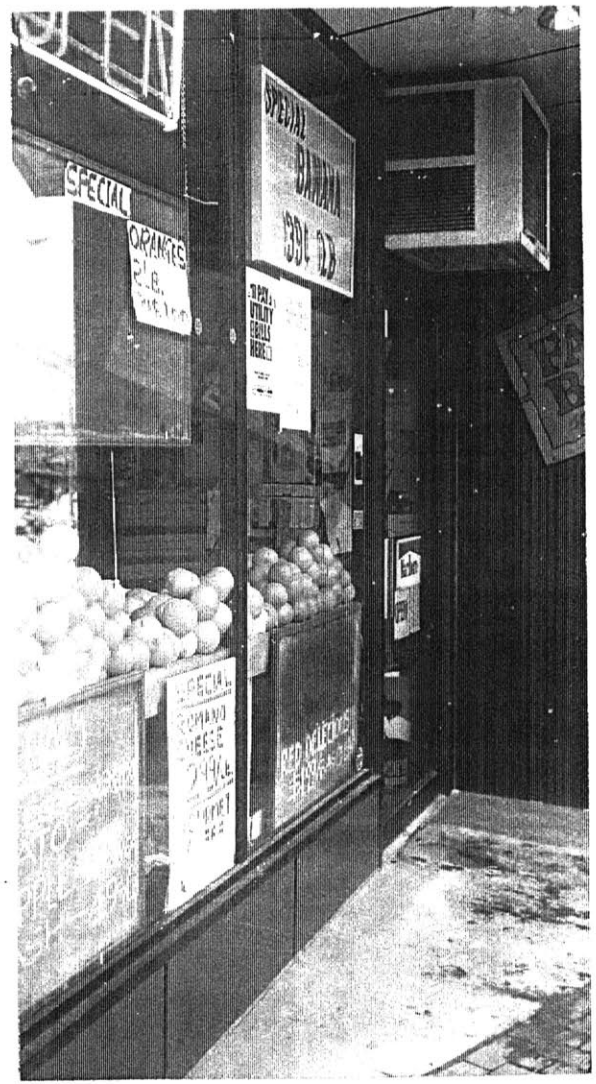


Photo above-Davis Square market

learning center's entrance is one zone and is physically connected to the street and pedestrian zone. It is identified as an individual zone through the deployment of the sitting wall at the street. The pedestrian zone at the street is defined by the columns that interact with the columns at the entrance, forming a use association yet separating the pedestrian zone from the street. The zone at the plaza level that is defined by the placement of the workshop wing of the learning center and the commercial building maintains a physical connection to the larger zone of the plaza and a visual connection to the main entrance above it in section. The larger plaza is physically divided by smaller entities such as sitting walls with trees and through the placement of the subway station. The subway station is open in section to the plaza level, intensifying its association to use and allowing natural light and natural ventilation to penetrate to the lower levels of the station. The path attempts to remain as the primary continuity established by a consistent dimension in width and surface use of material. This continuity establishes a registration by which other associations within

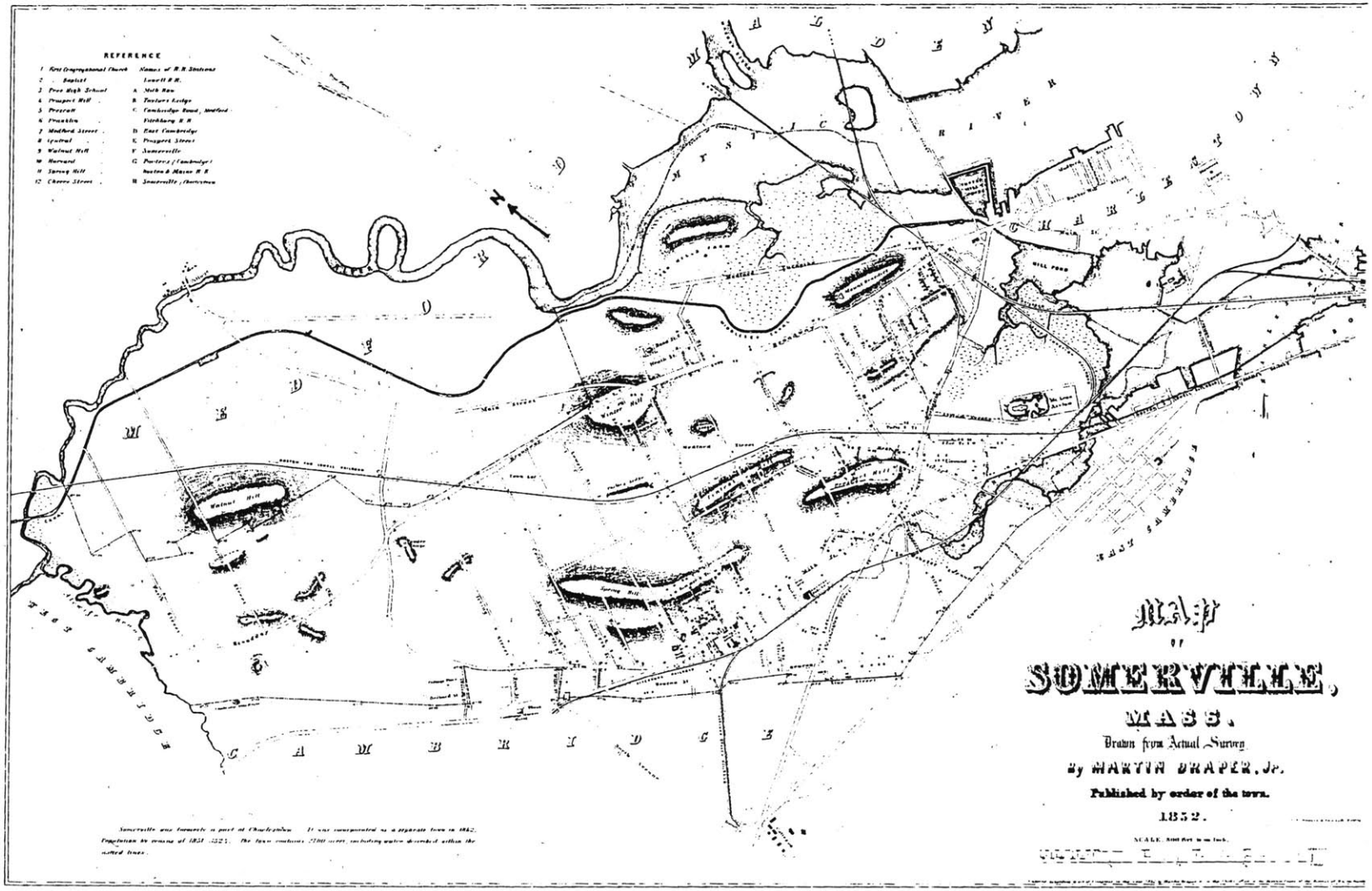
the plaza relate to and also connects the plaza to the larger fabric of the square and city. The path maintains its elevation well into the plaza even though the plaza level is twelve feet down from the level of the street. The path then descends to the level of the plaza which now exposes what was before underground parking located under the medical facilities. The path continues at this level through the plaza, entering a connecting tunnel under Holland Street to a depressed smaller plaza that is situated between Holland Street and College Street. The path then continues through another tunnel underneath College Street and then ascends back to ground level allowing pedestrian movement to avoid having to contend with vehicular traffic. The smaller plaza which presently is underused because of the heavy impact of the surrounding streets and vehicles is now more intensely defined the depression and its connection to the path. The relationship between the different occupiable levels and the lower plazas associate images of a collective theatre, a social magnet that sets the stage for the buildings within the configuration and its users.

Photo above-Davis Square Red Line subway station entrance

Context and Observation

"You must be like the dog, he will not find the rabbit if he goes directly to the hole. He must first find the scent then he will get the rabbit. If you go directly to the hole somewhere the bunny he is hopping. You never get!"
(on the importance of site and context analysis)

-Fernando Domeyko



Map of the Town of Somerville, 1852. Martin Draper.

Zelle, Carole (Beyond the Neck, Landscape Research, 1982.) pg. 28.

If a project is to be a response to a particular site, under specific conditions, and satisfy a determined program then the building's relationship to its site should be based on information formulated from observations of the site. This information should derive from the layering of historical artifacts and intrinsic actions. Much of this information does not reveal itself through simple observation unless an attempt is made to understand that the context depends on a large spectrum of elements and the relationship that each has to the other. The quantity of the information is irrelevent unless an association can be established. The quality of any given place is derived from a clear understanding of these intrinsic forces because it will be these forces that form memories and allow later associations.

The observations that were made of the Davis Square neighborhood concentrated on issues that related to the premise of the thesis; the attempt to intensify the collective use of public place. The relative qualities that establish Davis Square as a 'memorable place' are based on the relationship between its physical and metaphysical phenonema.

Davis Square is situated in the City of Somerville and is nestled between several hills that were formed by the action of the Wisconsin glacier and its ice melts dating back to 14,000 years ago. These hills define edges that offer a natural visual containment and orientation for the village. The Alewife Brook, a subsidiary stream of the Mystic River once produced a small finger of water that reached into the village but has long since been dammed. This finger of water established a physical connection to the bay and to the City of Boston.

The built intervention within Davis Square started in the form of a system of roads and railroad lines. The first road was Winter Hill Road (laid out in 1630) which has since

become Broadway and established the most direct route from Davis Square area to Charlestown. Later Milk Road was built to connect the large dairy farms to Charlestown. The area of Davis Square became more settled and in 1871 was named after a Somerville farmer and alderman named Person Davis. The first street to actually run through what is now considered the square was Elm Street and in 1863 the Somerville Horse and Railway Company began running horsecars down Elm to Boston. With this link came industry and commercial blocks. Establishing Davis Square as a commercial center many of these blocks still exist. Today , this commercial center has a strong identity with a clearly defined edge built by its encompassing residential district.

The residential neighborhood is composed of a very dense fabric of detached single and multi-family houses. This density provides a continuity in form that intensifies the building block, the street block, and the public zones in between. The street configuration also contributes to the intensity as many of the street's orientations date back to their origin and are asymmetrical to the infill street grid that

was later developed. Also contributing to the quality of the neighborhood are streets that end in T intersections, sometimes at both ends, defining street neighborhoods.

The 'center' of Davis Square consists of five streets that meet at a point. Because of the centralized concentration and the percentage of ground surface that is occupied by vehicular traffic there is little surface left for collective opportunities. The small square that does exist is seldom used because of the lack of a built separation between the plaza and the street. The center of the square is also bordered by a pedestrian and bicycle path that is surfaced and developed from Davis Square to the Alewife subway station and then continues on in a less developed but still heavily used path extending out to the suburbs of Lexington and beyond. This pathway is a remnant of the old Lexington and Arlington Railroad bed and provides a strong continuity and connection between Davis Square and its neighboring districts. The quality of this pathway forms strong associations for the user and intensifies the collective use as a public corridor. (refer to chapter # for further description of the path).

The developed portion of the pathway not only exists on the old rail bed but is also situated above the subway link of the Red Line that travels from Davis Square to Alewife. The subway, built in 1984, establishes another physical connection for Davis Square but this action is void of any association because the experience has no relationship to the public and its environs except at the scale of the train interior and the station's underground platform. If it was not for the signage that designates the entrance of the subway station and the occasional rumble of the ground, one would never know that such an entity even existed.

Davis Square also is associated by several of its cultural elements such as the The Somerville Theatre, established in 1914 as a live theatre that now exists as a center for live entertainment/cinema, and several nightclubs.

It is the totality of these elements and their experiential relationships that enable the user to form associations thatthhatthatderdedetermine the quality of the Davis Square neighborhood center as 'place'.

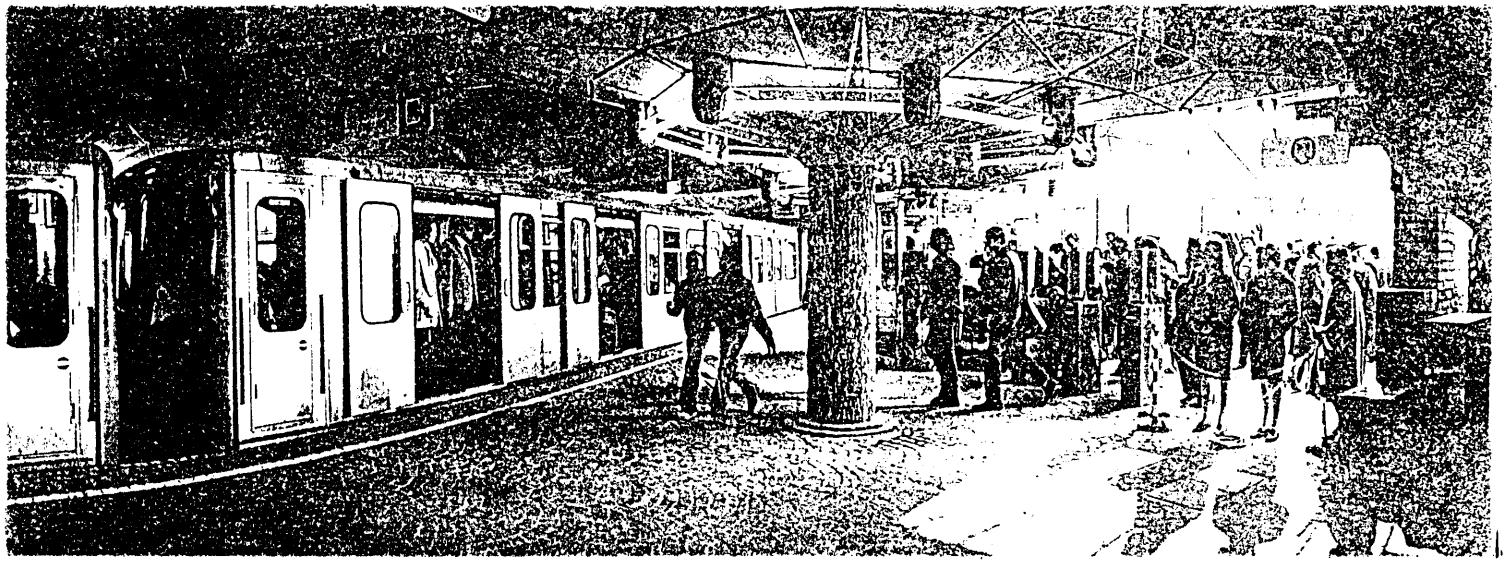
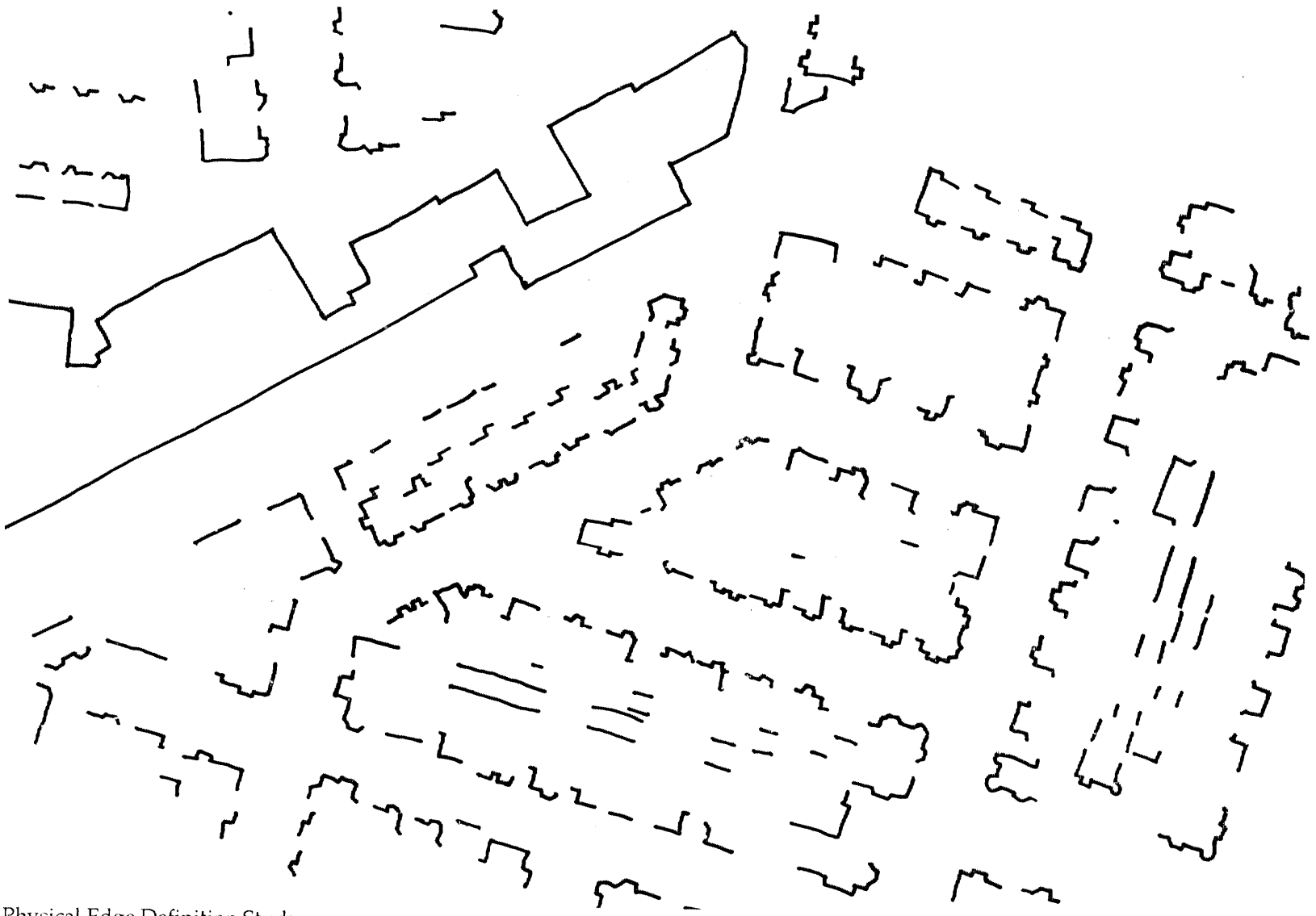


Photo above- Metro Station, Alma, Belgium 1972-82 Kroll, Lucien (Lucien Kroll Buildings and Projects, Rizzoli International Publications ,Inc.1987. pg.75.

Facing page- Physical Edge Definition study of Davis Square residential neighborhood. Note the density of the edge that the individual houses contribute to the whole. Two entities are established-the street block zone and the interior block zone. Each zone is clearly defined and consequently associated as a dimensional whole.



Physical Edge Definition Study

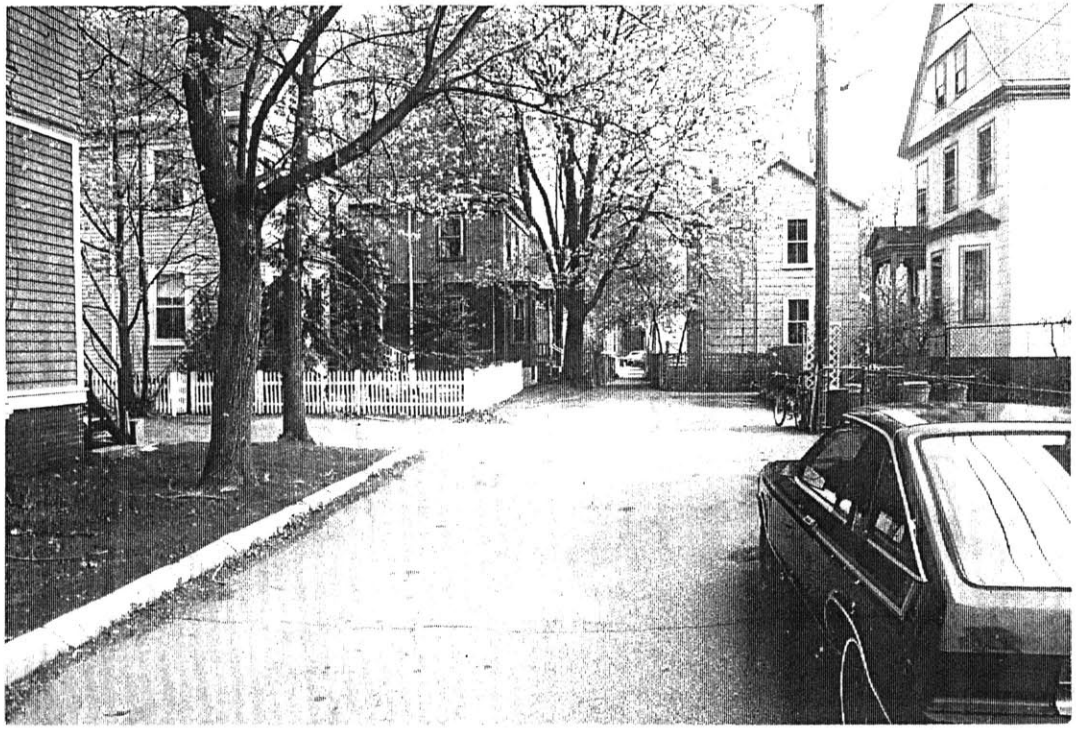


Photo left- an interior street block zonewith a small public path straight ahead. This path is less public because of the lack of defined edge consequently its use is constricted to those within the neighborhood who are intimate with the area.

Photo right- M.W. Carr and Company, 1916, one of the many existing industrial buildings located along the public pedestrian/bicycle path that contribute in intensifying the edge of the path. The building's smokestack also acts as a landmark for the path and its connection to the plaza. The smokestack is in direct orientation with the path establishing a physical node.

Photo left- Existing small square at the intersection of Holland, Elm, College, Highland, and Dover Streets. The square has one edge definition established by the commercial building that adjoins it. The businesses also lay claim to that zone of the square and the street lays claim to the rest of the square. Consequently, the square is seldom occupied and is a dead zone. The City of Somerville has even unsuccessfully gone to the effort of installing a grouping of figure sculptures to activate the area. This square is the second of the interventions planned with the new plaza configuration and would be depressed one level, connected by the path which would run under the two streets that border the small square. This would also open up another level of commercial retail at the level of the plaza.

Photo above- Campbell Park street, Davis Square, showing how the density of residences forms an intense edge

"Town planning, again, cannot be restricted to the mere designing of a city; it has to be looked at within the larger context of regional planning that links together a given urban area and its hinterland. Otherwise it is quite impossible to arrive at any solution that adequately meets human needs and furthers harmonious living within a community.

Human life consists, in equal degrees, of tradition and new creation. Traditions cannot be wholly cast off and regarded as used objects which have to be replaced by something new. In human life continuity is a vital necessity.

Human life is a combination of tragedy and comedy. The shapes and designs which surround us are the music accompanying this tragedy and comedy of human life."

-Alvar Aalto, 1957

(Alvar Aalto 1963-1970, Praeger Publishers, New York, 1971, pg. 8)

Photo above- Davis Square, ca.1910, with the 1888 Medina Block in the foreground that still partially exists today.(Zelle, Carole Beyond the Neck, Landscape Research, 1982.)

Structural Program

"Whatever an architect does or deliberately leaves undone-the way he concerns himself with enclosing or opening-he always influences, intentionally or not, the most elementary forms of social relations. And even if social relations depend only to a limited extent on enviromental factors, that is still sufficient reason to aim consciously at an organization of space that enables everyone to confront the other on an equal footing."

-Herman Hertzberger, pg.214

The structural program of the Davis Square Learning Center was developed in process as the project materialized. There were of course certain needs that were considered from the very start but as the project transformed so did the program. The structural program was generated from the relationships of the individual uses to each other, to the whole of the building, to the configuration of the plaza, and to the larger dimensional fabric of the city . The optimum sizes for each use terrritory was developed from references of built schools that had been studied from previously taken studios and from design projects in those same studios.

The use territories are developed as zones and not specifically as individual rooms. Each zone is generated by establishing strong definitions through the built structure. Within these zones exist spatial relationships that are intended to be manipulated by the users. Over time, these manipulations will develop a layering of decisions that will enrich the understanding of the individual uses and its inhabitants.

The building's structure utilizes the physical support

elements, such as the shear walls, the columns, the slabs, and the beams to establish relationships with the program's uses in order to develop associations that in turn inform the occupant. Most access zones are single loaded with containments on one side and either face the exterior on the other side or look into an open section of the building. The more public access zones face out to the open atriums whereas the less public territories face out to the exterior of the building.

The definition between the access zones and the containments is established by a three foot deep transitional zone. This built zone is an opaque wall that is six feet high and then changes to operable windows that provide natural ventilation and filtered light from the access zone into the containment zone. The wall also houses storage capacity, a display shelf on top of the wall, and sitting alcoves on the access side.

The workshop containments are paired up with a floor to ceiling concrete T shear wall that partially separates them. The T wall also demarcates the separate entrances that are to

the left and right of the wall. Finishing the separation of the paired workshops are movable walls that retract back to join the two spaces as one if desirable. Each workshop has a cantilevered bay window demarcated by a free standing column located several feet inside the space that defines the territory of the bay as a partial containment. With the positioning of the column in the bay, the column's presence is activated from the inside by the natural light that surrounds it and at night when the building is lit from the interior, the column is experienced from the outside. This activation of the structure through the use of light enriches the association of the structure and its relationship with being inhabited.

Since the structure is built of free standing columns that support cantilevered beams and slabs, the exterior enclosure consists of infill panels as screens and are free to be positioned wherever. By locating the screened(non-supporting) enclosure three feet in from the edge of the slab, an additional zone is created between the columns and the edge of the slab which allows inhabitation. This set back of the exterior wall also creates a zone of privacy from the

outside without having to build a solid wall that would destroy the capacity for natural light. The top of the screen incorporates operable ribbon windows for natural light and ventilation. Utility support systems are located vertically in a cavity of the T wall and then are dispersed to more individual locations through the use of exposed elements.

The structure of the building is defined and understood through the consistent use of individual elements whose composition as a whole intensifies the experience of inhabiting the building.

LEARNING INSTITUTE

"Thus architecture is also capable of showing that which is not actually visable, and of eliciting associations you were not aware of before. If we succeed in producing architecture that is so layered that the diversity of realities as embedded in the different layers of consciousness is reflected in the design, then architectural environment will moreover 'visualize" these embedded realities and will thus tell the users something 'about the world'." -Herman Hertzberger

Lessons for Students in Architecture, pg 230.

"I began to realize that the bells and the confinement, the crazy sequences, the age-segregation, the lack of privacy, the constant surveillance, and all the rest of national curriculum of schooling were designed exactly as if someone had set out to **prevent** children from learning how to think and act, to coax them into addiction and dependent behavior.

I began to devise exercises to allow kids the raw material people have always used to educate themselves: privacy, choice, freedom from surveillance, and as broad a range of situations and human associations as my limited power and resources could manage. In simpler terms, I tried to maneuver them into positions where they would have a chance to be their own teachers and to make themselves the major text of their own education.

Meaning, not disconnected facts, is what sane human beings seek, and education is a set of codes for processing raw data into meaning." -John Gatto

Dumbing Us Down, pg. 63.

The learning institute is to be a laboratory where people congregate to process that which they experience in daily life. Instructors provide direction and structure to the student's explorations. This processing establishes a connection between experience and fact so that associations are based on meaning rather than abstract textual concepts.

A building which facilitates as such a laboratory should not only establish a physical connection to the public but also an emotional link to the collective context in which it is situated. A clear understanding of the accessibility of a public learning center must be established through its use and built form. Accessibility does not only imply the physical act of entering or leaving. If the building can be flexible to allow a wide spectrum of uses then its accessibility is increased. If the form of the building through its structure is understandable and coherent then it implies its accessibility through association.

The spatial nature of a learning center should allow a flexibility of uses. Its quality will be determined by the ability to be clearly understood through built definitions that

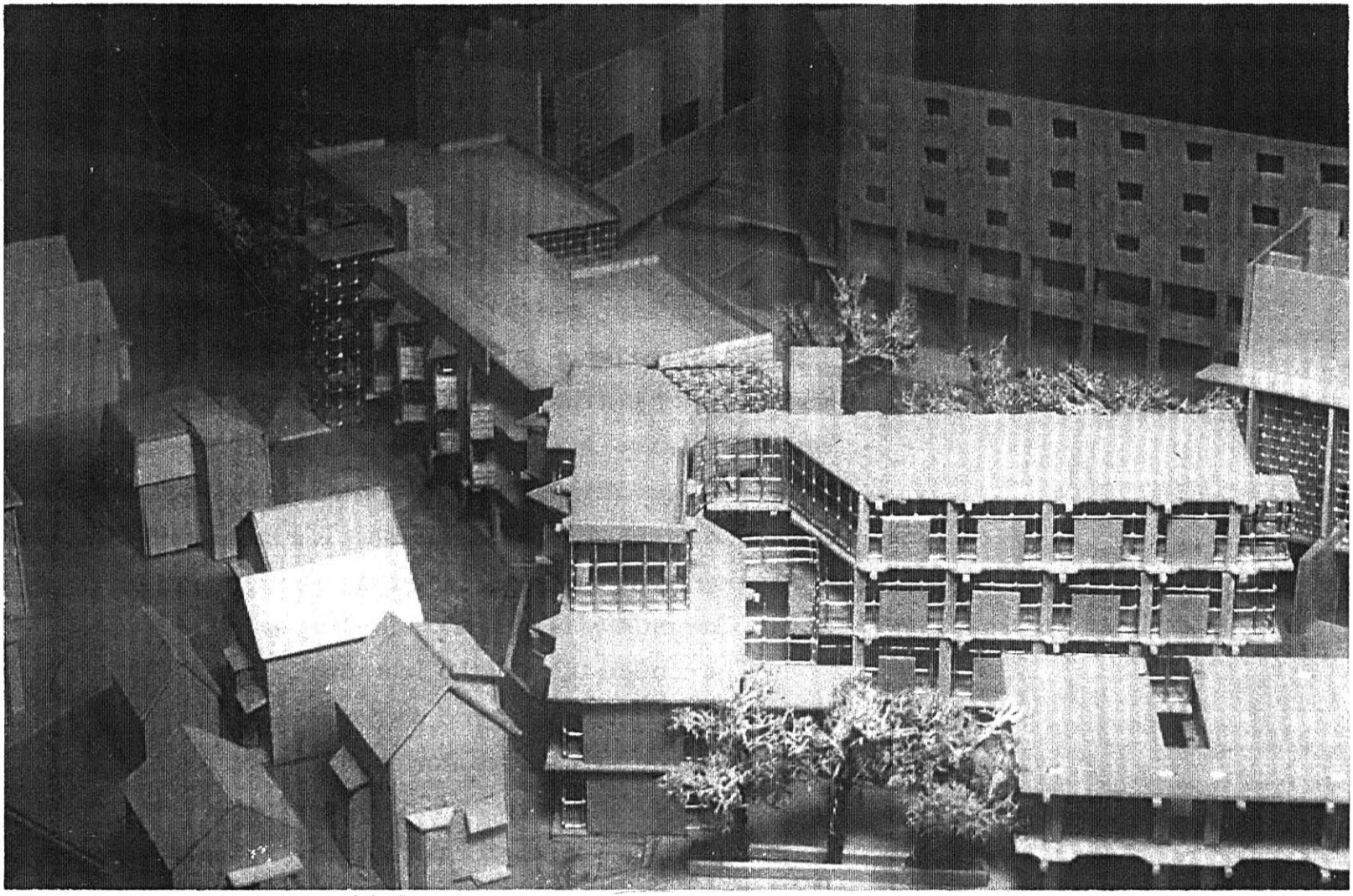


Photo above- model exploration of the Learning Center. The main entrance is at the bottom of the photo with the dorms located at the upper left of the building and workshops at the right.

create a number of differentiated use territories.

The Center's program consists of administrative offices, a social services office, eight workshops, six classrooms, teacher's offices, a collective meeting area/ theatre, mechanical room, storage facility, service area, kitchen, dining area, twenty-two boarding rooms with double occupancy, and two student dens. The primary entrance for the center is facing south and located on Dover Street which has a direct physical and visual link to the commercial area. A secondary entrance is facing west and is located on Meachem Street and is primarily connected to the housing neighborhood. This entrance is a more controlled access point and is primarily used as an entrance to the dorm. Community functions could also use this entrance.

The configuration of the Learning Center is a four story building at the plaza edge and with a sectional change at the edge of the site it rises three stories on the west facing the neighborhood. The Center and its support facility occupy the entire building except for the dorm which is located on the second and third floors at the northwest end of the building.

The primary entrance faces a courtyard that is defined by the forms of the building, a sectional change of twelve feet, and an edge defined at the street by a sitting wall with trees. Entrance into the Learning Center is experienced by moving through a zone demarcated by an overhead terrace balcony supported by a solid wall on the left and free standing columns on the right. When entering the Center in the morning hours, the columns cast a shadow on the solid wall allowing the user to initiate an early awareness of the Center's structure. The overhang is occupiable from the second floor of the building and provides an opportunity for observation and greeting by staff or the student body. Once inside one finds a three floor open atrium informing the user as to the organization of the interior and infiltrating interior zones with light. Most access zones in the Center are located along this open section or are located on the south side of the workshop wing. Beyond this open zone are elevated catwalks which are activated by the light from the second open section which also serves as the vertical access zone and provides an area for collective use on the ground floor of the

plaza.

The access zone is separated from the use zones by a three foot deep built zone that provides sound and visual separation between the two zones. This solid wall, which houses storage for the workshops on one side and at times provides opportunities for sitting on the access side, is six feet in height and allows filtered light into the workshop as well as circulation without loss of privacy. The activity in the workshop can then also be experienced indirectly from the hallway.

The workshop space is flexible in its use where by sliding a movable two foot thick wall along a track the space can be opened up to the adjoining workshop space for larger format need. Each workshop has a large bay window, demarcated by an interior column and once again activated by the light that surrounds it. The columns positioning defines an additional zone that can be used in a smaller format situation.

The exterior of the building is built up through a series of zones that act as screens to activate the structure of the

building, provide controlled natural light, allow for natural circulation of air, and create a certain degree of privacy. This build up of structure as screen produces an alternation of light within the access zone, defines opportunities for collective as well as individual inhabitation, and maintains energy efficiency through the deployment of the insulating panels located in the screen.

The primary experiential element of the structure is its transparency. This transparency allows an association of accessibility and its use, revealed through visual contact in the access zones and through interior light working its way through the structure to be revealed at night.

The section of the building is organized in zones as well, dictated by the relationship the section maintains with the surrounding buildings and the plaza. A clear definition between collective and individual is addressed. At the plaza level, the Learner Center utilizes very solid walls to imply non-ownership of territory within the plaza. Through the use of floor overhangs and access zones facing the plaza, a zone of privacy for both the plaza as well as the Center is also

established. The floor overhangs also reinforce the horizontal and individual zones of the building. These maintain a scale relationship between the individual components within the context of the buildings and the plaza as a whole.

The Learning Center explores the need for community collective use by creating a zone at the street level for social service offices and after-hour use in the workshops. This level can be secured from other levels yet offers visual accessibility associated with a public building.

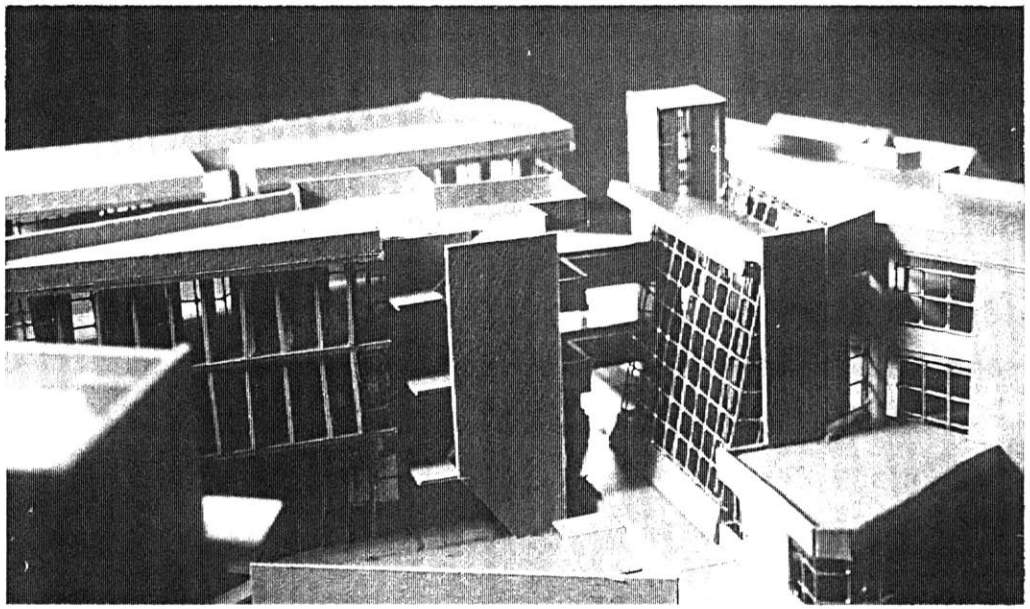
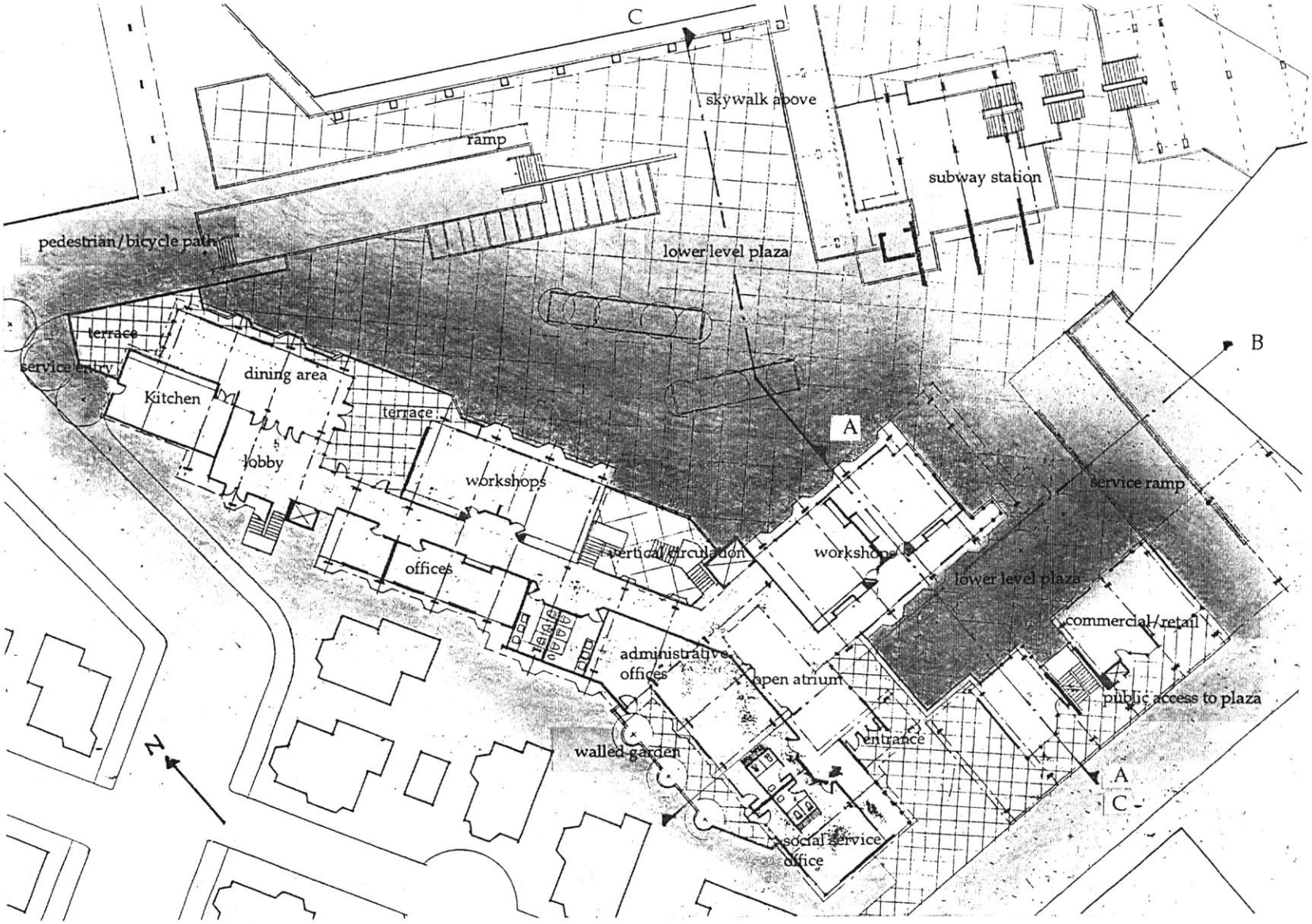
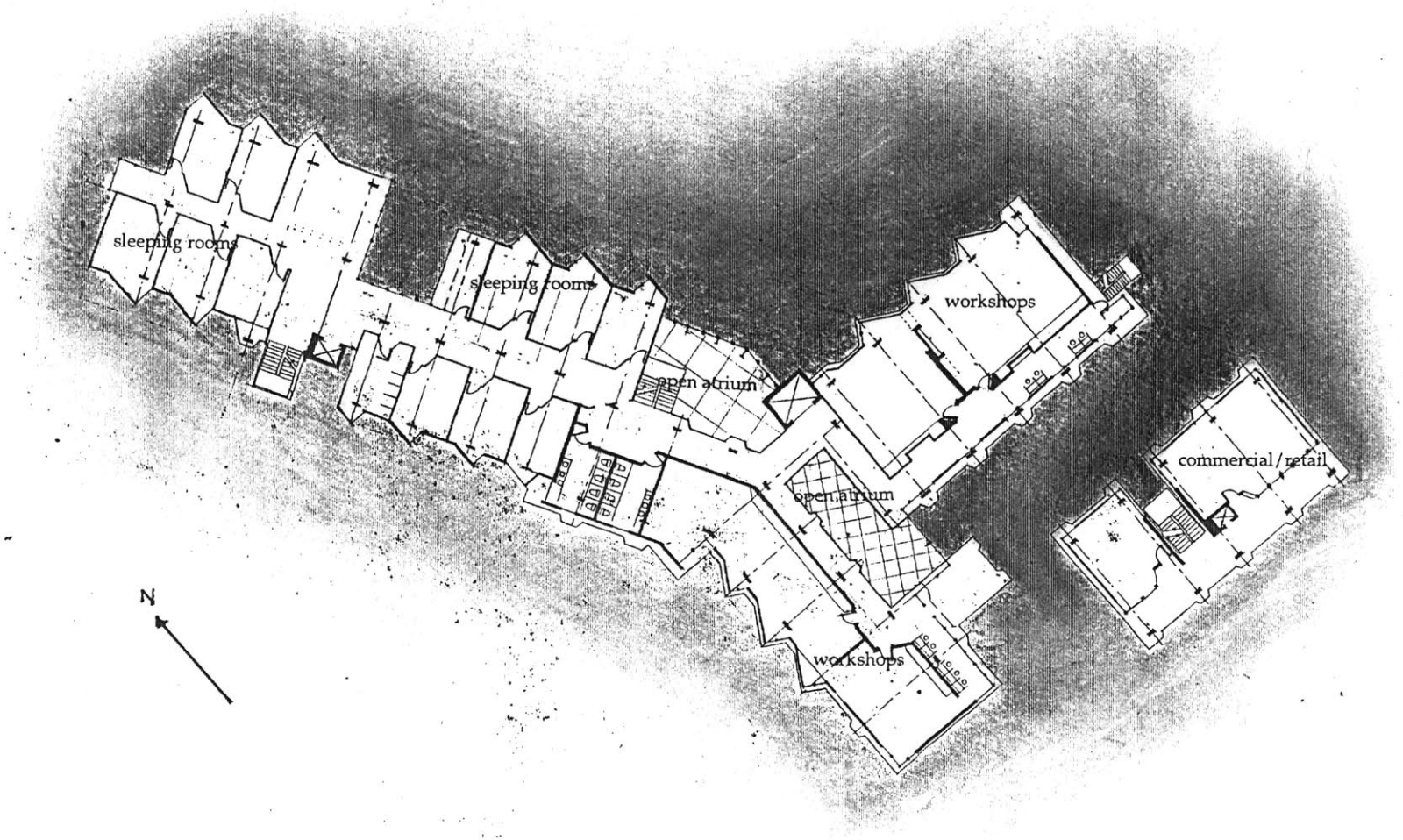


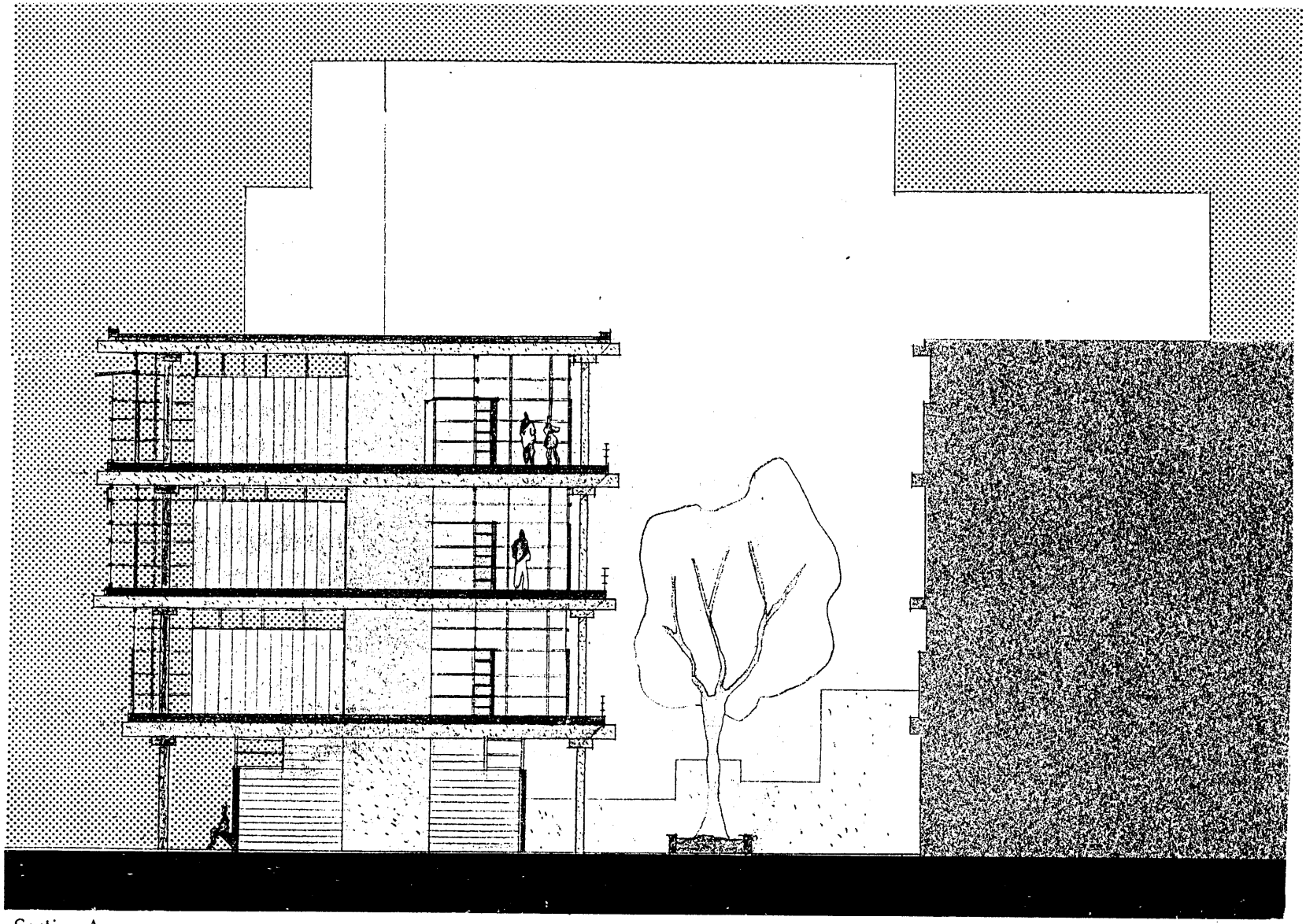
Photo left- model exploration of the Learning Center. The public access to the plaza is brought through a small separation in the building. This exploration was less successful due to an ambiguous definition of public versus private. The connections between the buildings were established through elevated skywalks allowing a connection between the neighborhood and the plaza. This connection was re-established through a shift of the two buildings at the street still allowing for a visual connection but more clearly defining the different territorys.



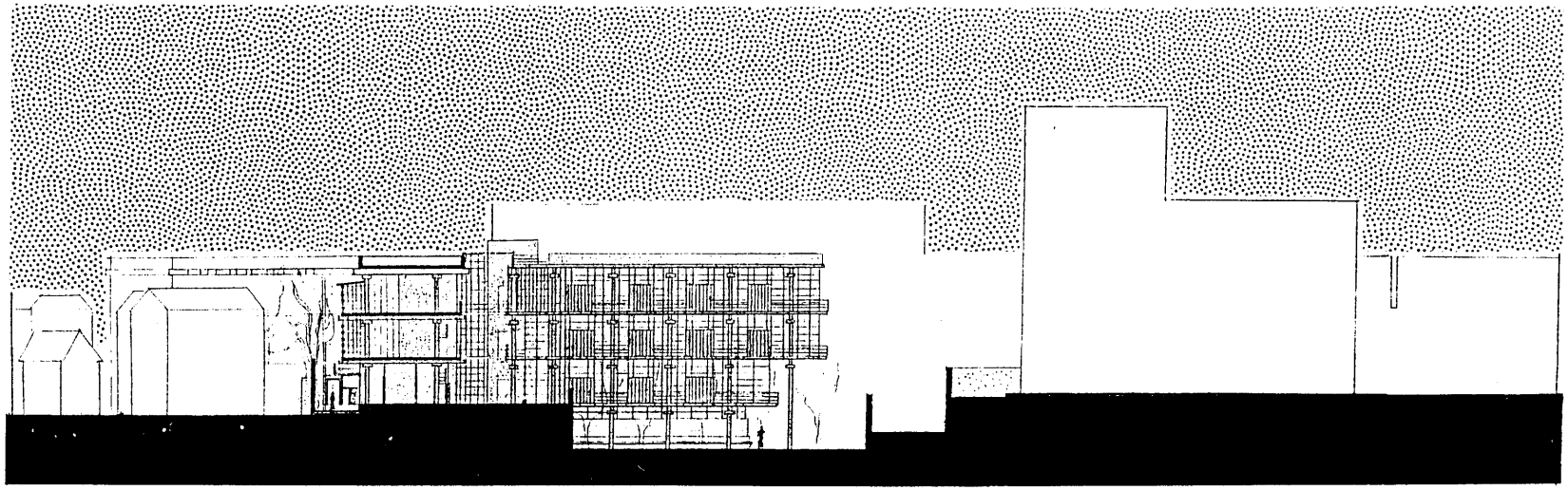
Learning Center- street level



Learning Center-second level



Section A



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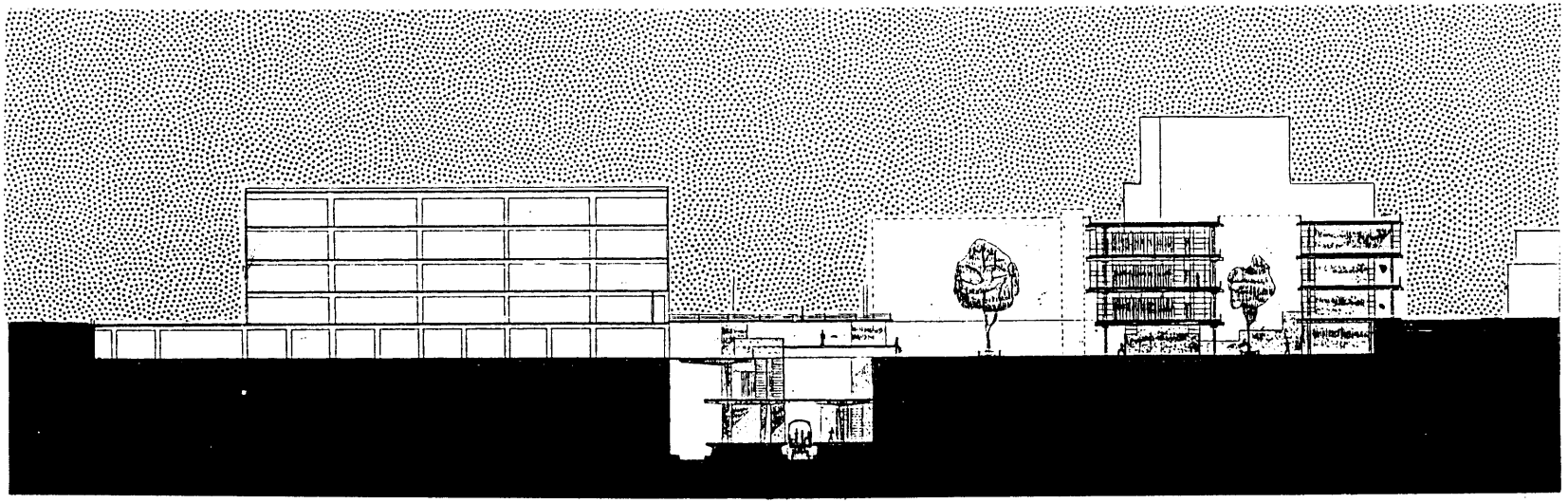

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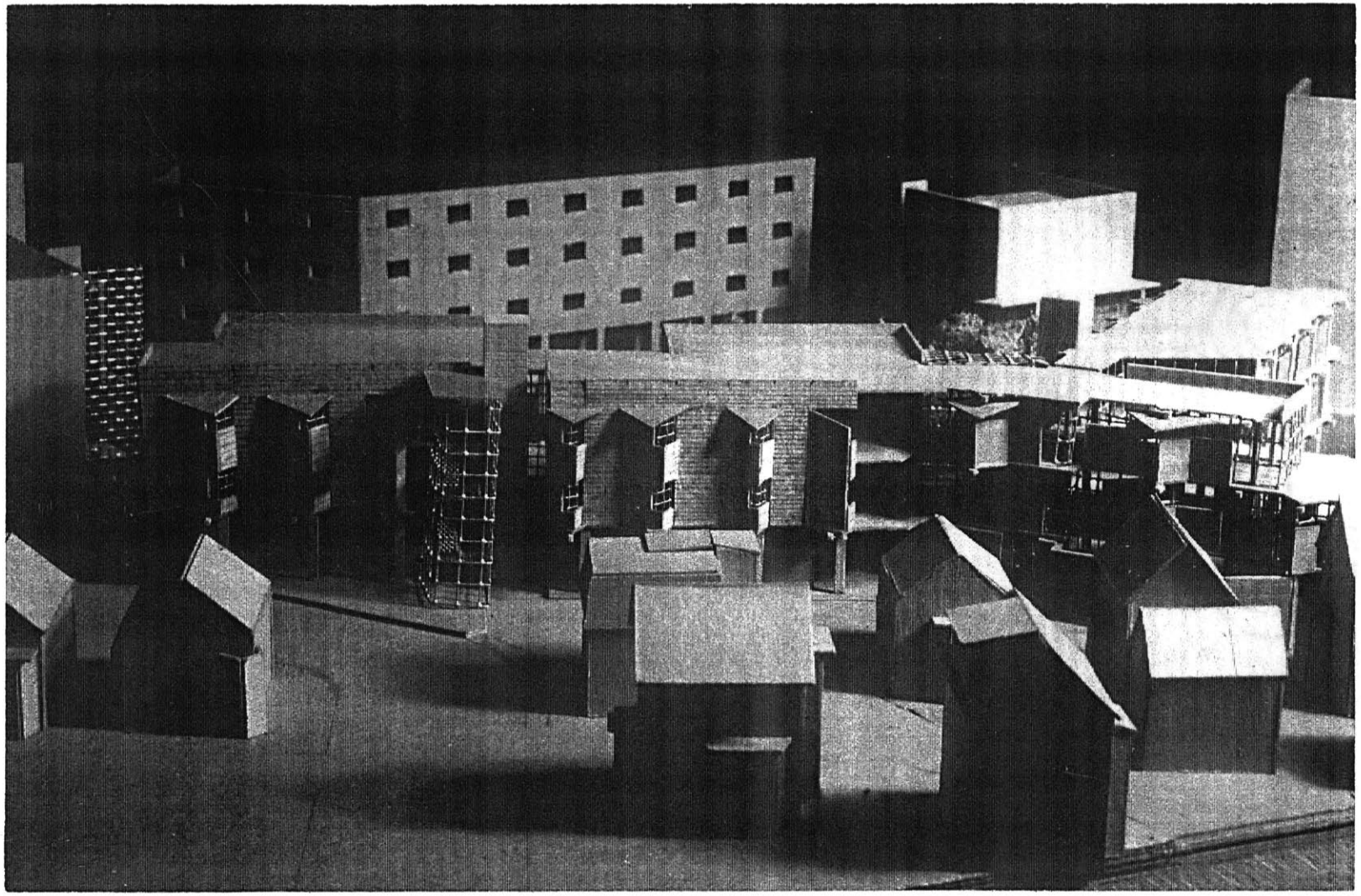

Photo above- southwest elevation of the
Learning Center with dorm to the left

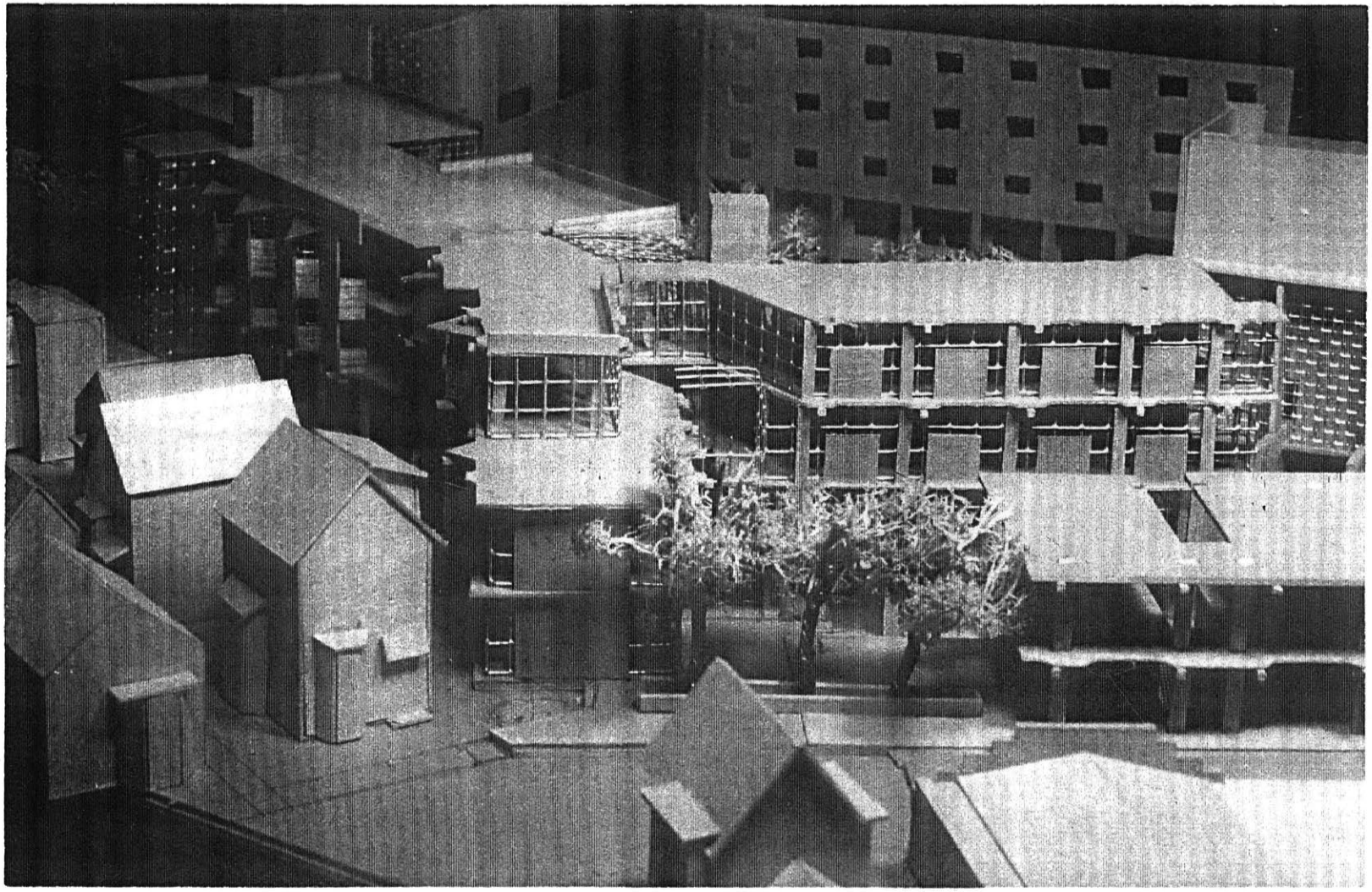

Photo above- south elevation at main entrance

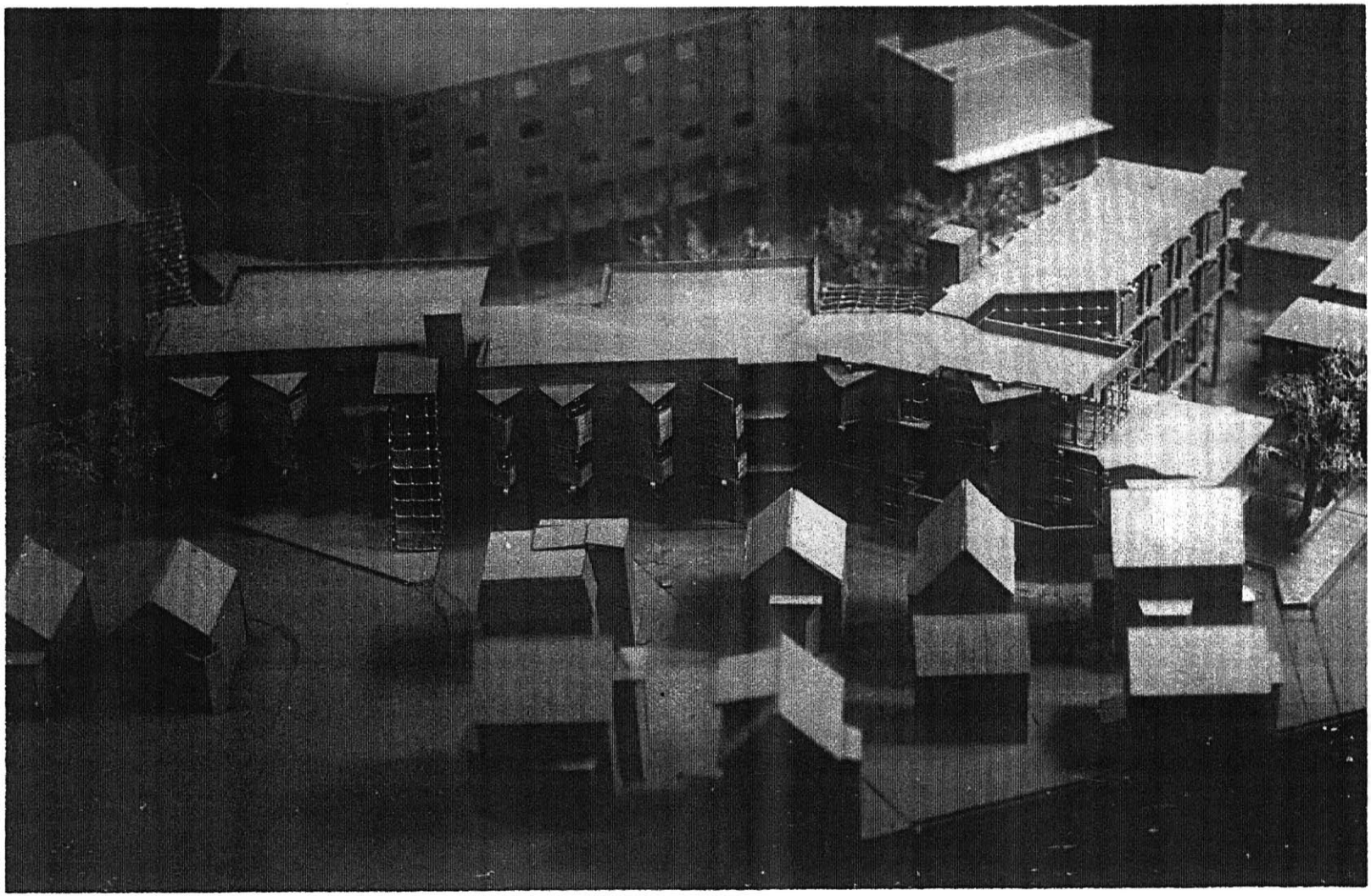

Photo above- southwest elevation with view
into the interior plaza

Photo above- north elevation with plaza interior

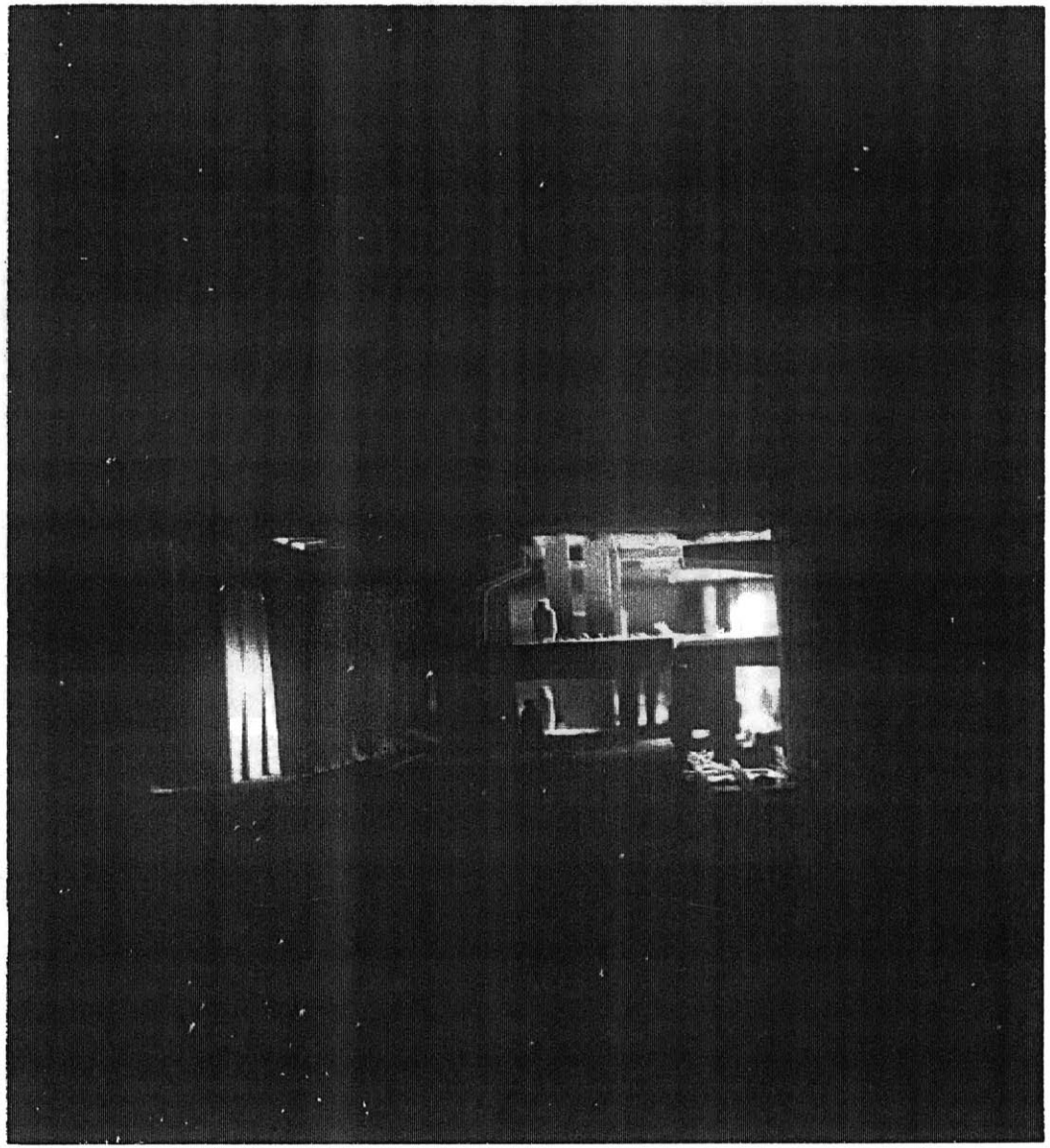

Photo right- Model study of new subway station intensified by abundance of natural light that activates the physical structure.

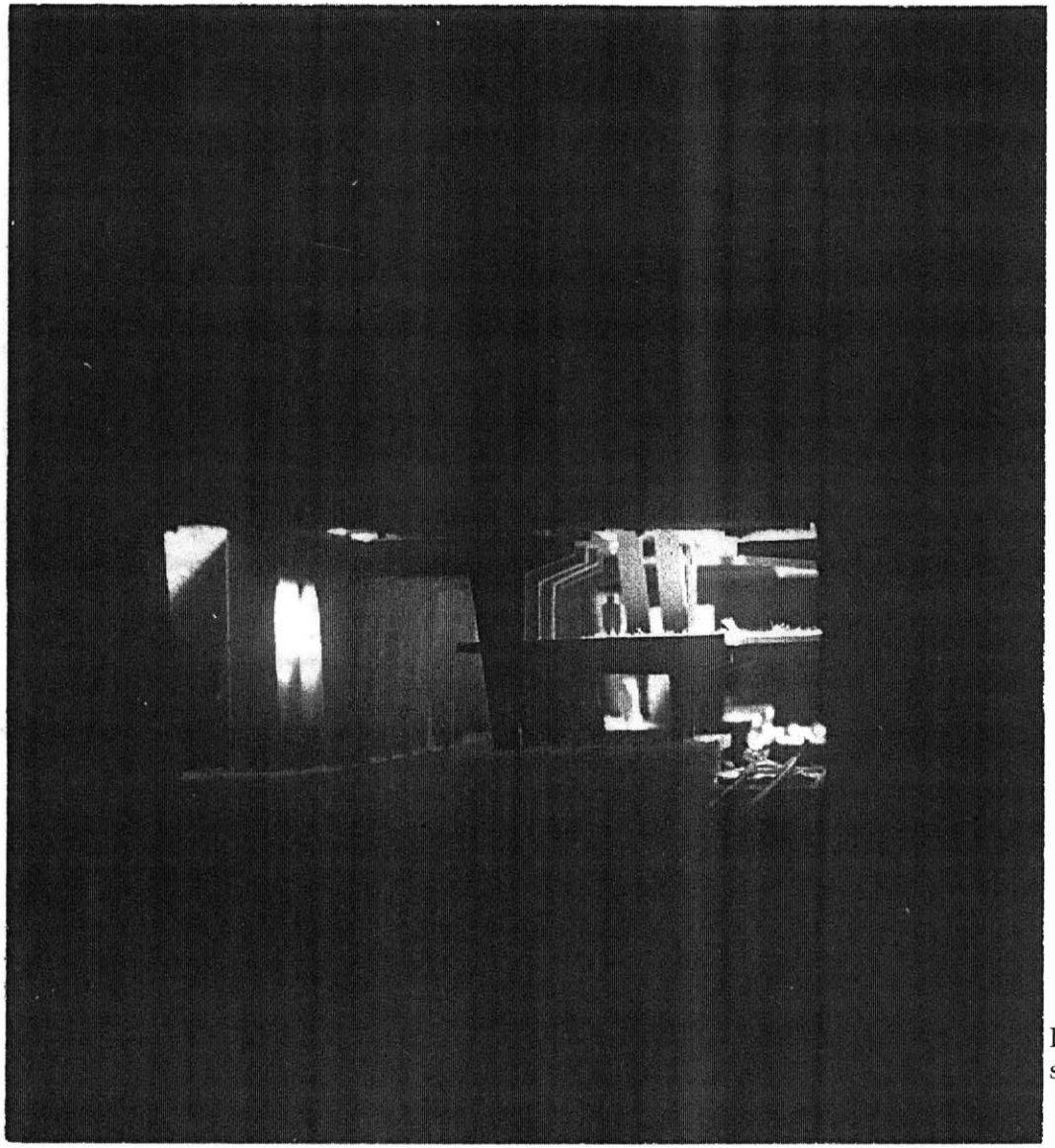

Photo left- Model study of new subway station

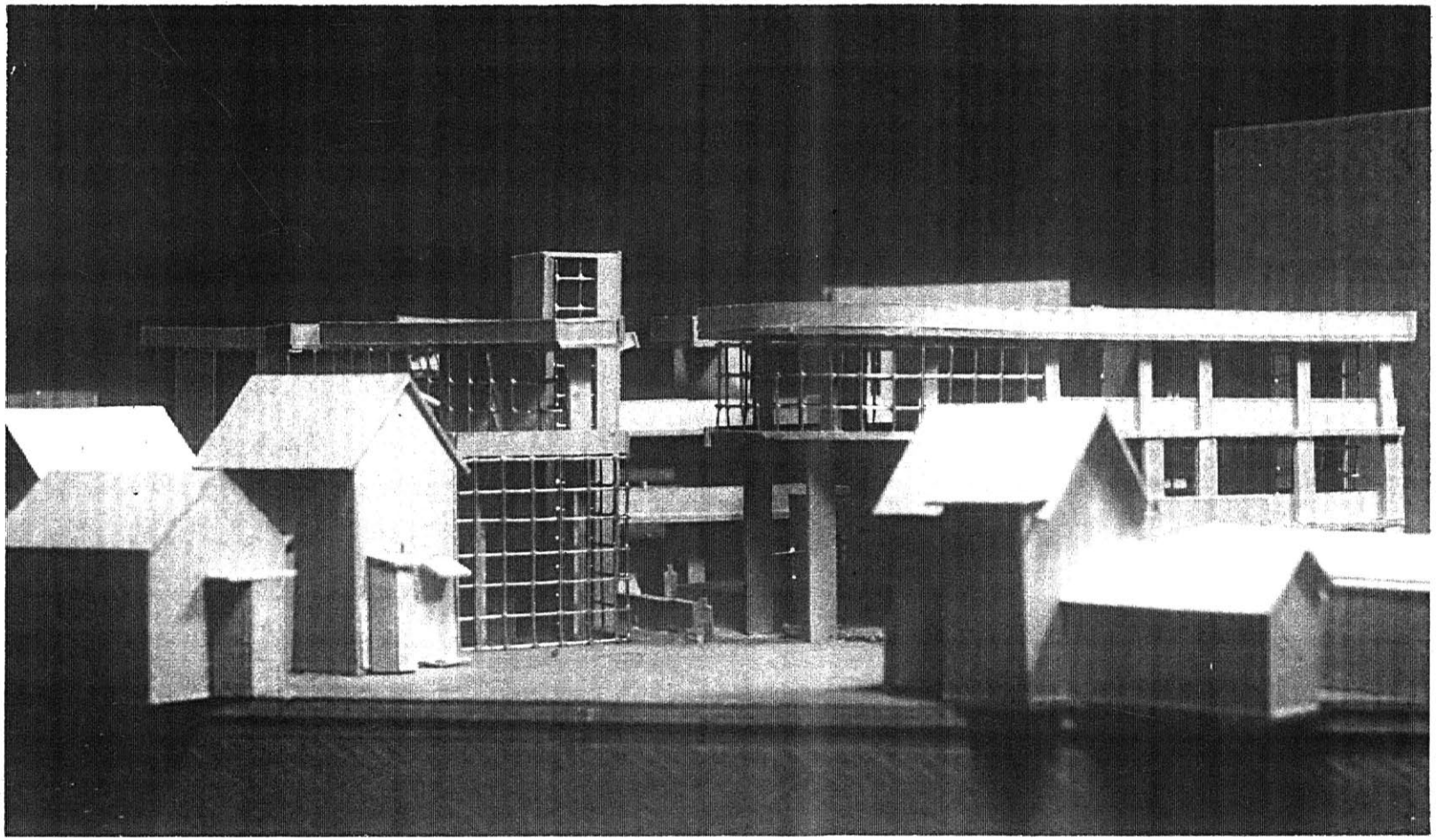

Photo above- Model study with
public access separating the
Learning Center at the street level.

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